CK3c

Mobile Computer

CK3c, CK3c1

User's Manual

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Document Change Record

This page records changes to this document. The document was originally released as Revision 001.

Version Number	Date	Description of Change
004	2/2011	Revised manual to correct the following sections: • **"Connecting to a Bluetooth Scanner" on page 35**. • **"EA20X Extended Range Area Imager Minimum Reading Distances" on page 86**. • **"Single Dock (AD20)" on page 94**.
003	6/2010	Revised manual to add the EX25C imager and update supported bar code symbologies.
002	3/2009	Revised manual to support the new CK3c1 model, and the DDIB 802.11 a/b/g radio module.

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Before You Begin

This section provides you with safety information, technical support information, and sources for additional product information.

Safety Information

Your safety is extremely important. Read and follow all warnings and cautions in this document before handling and operating Intermec equipment. You can be seriously injured, and equipment and data can be damaged if you do not follow the safety warnings and cautions.

This section explains how to identify and understand warnings, cautions, and notes that are in this document.

A warning alerts you of an operating procedure, practice, condition, or statement that must be strictly observed to avoid death or serious injury to the persons working on the equipment.

A caution alerts you to an operating procedure, practice, condition, or statement that must be strictly observed to prevent equipment damage or destruction, or corruption or loss of data.

Note: Notes either provide extra information about a topic or contain special instructions for handling a particular condition or set of circumstances.

Global Services and Support

Warranty Information

To understand the warranty for your Intermec product, visit the Intermec web site at **www.intermec.com** and click **Support** > **Returns and Repairs** > **Warranty**.

Disclaimer of warranties: The sample code included in this document is presented for reference only. The code does not necessarily represent complete, tested programs. The code is provided "as is with all faults." All warranties are expressly disclaimed, including the implied warranties of merchantability and fitness for a particular purpose.

Web Support

Visit the Intermec web site at **www.intermec.com** to download our current manuals (in PDF).

Visit the Intermec technical knowledge base (Knowledge Central) at **www.intermec.com** and click **Support** > **Knowledge Central** to review technical information or to request technical support for your Intermec product.

Telephone Support

In the U.S.A. and Canada, call **1-800-755-5505**.

Outside the U.S.A. and Canada, contact your local Intermec representative. To search for your local representative, from the Intermec web site, click **About Us** > **Contact Us**.

Service Location Support

For the most current listing of service locations, click **Support** >**Returns and Repairs** > **Repair Locations.**

For technical support in South Korea, use the after service locations listed below:

AWOO Systems
102-1304 SK Ventium
522 Dangjung-dong
Gunpo-si, Gyeonggi-do Korea, South 435-776
Contact: Mr. Sinbum Kang
Telephone: +82-31-436-1191
E-mail: **mjyun@awoo.co.kr**

IN Information System PTD LTD
6th Floor
Daegu Venture Center Bldg 95
Shinchun 3 Dong
Donggu, Daegu City, Korea
E-mail: **jmyou@idif.co.kr** or **korlim@gw.idif.co.kr**

Who Should Read This Manual

This manual is for the person who is responsible for installing, configuring, and maintaining the CK3c Mobile Computer. In this manual, CK3c refers to both models CK3c and CK3c1, unless specifically stated otherwise.

This manual provides you with information about the features of the CK3c, including how to install, configure, operate, maintain, and troubleshoot it.

Before you work with the CK3c, you should be familiar with your network and general networking terms, such as IP address.

Related Documents

The Intermec web site at **www.intermec.com** contains our documents (as PDF files) that you can download for free.

To download documents

1. Visit the Intermec web site at **www.intermec.com**.
2. Click the **Products** tab.
3. Using the **Products** menu, navigate to your product page. For example, to find the CK3 computer product page, click **Computers** > **Handheld Computers** > **CK3**.
4. Click the **Manuals** tab.

If your product does not have its own product page, click **Support** > **Manuals**. Use the **Product Category** field, the **Product Family** field, and the **Product** field to help you locate the documentation for your product.

Patent Information

Product is covered by one or more of the following patents:

4953113; 4961043; 4970379; 4988852; 5019699; 5021642; 5038024; 5081343; 5095197; 5144119; 5144121; 5182441; 5187355; 5187356; 5195183; 5216233; 5216550; 5218191; 5227614; 5233172; 5241488; 5243602; 5258606; 5278487; 5288985; 5308966; 5322991; 5331136; 5331580; 5342210; 5349678; 5359185; 5371858; 5373458; 5389770; 5397885; 5410141; 5414251; 5416463; 5442167; 5464972; 5468947; 5468950; 5477044; 5486689; 5488575; 5500516; 5502297; 5504367; 5508599; 5514858; 5530619; 5534684; 5536924; 5539191; 5541419; 5548108; 5550362; 5550364; 5565669; 5567925; 5568645; 5572007; 5576529; 5592512; 5594230; 5598007; 5608578; 5616909; 5619027; 5627360; 5640001; 5657317; 5659431; 5671436; 5672860; 5684290; 5719678; 5729003; 5742041; 5761219; 5764798; 5777308; 5777309; 5777310; 5786583; 5793604; 5798509; 5798513; 5804805; 5805807; 5811776; 5811777; 5818027; 5821523; 5828052; 5831819; 5834749; 5834753; 5837987; 5841121; 5842070; 5844222; 5854478; 5862267; 5869840; 5873070; 5877486; 5878395; 5883492; 5883493; 5886338; 5889386; 5892971; 5895906; 5898162; 5902987; 5902988; 5912452; 5923022; 5936224; 5949056; 5969321; 5969326; 5969328; 5979768; 5986435; 5987192; 5987499; 5992750; 6003775; 6012640; 6016960; 6018597; 6024289; 6034379; 6036093; 6039252; 6064763; 6075340; 6095422; 6097839; 6102289; 6102295; 6109528; 6119941; 6128414; 6138915; 6149061; 6149063; 6152370; 6155490; 6158661; 6164542; 6164545; 6173893; 6195053; 6234393; 6234395; 6244512; 6249008; 6328214; 6330975; 6345765; 6356949; 6367699; 6375075; 6375076; 6375344; 6431451; 6435411; 6484944; 6488209; 6497368; 6532152; 6538413; 6539422; 6621942; 6641046; 6681994; 6687403; 6688523; 6732930; 6859190; 6889903; 6967280; 7027037; 7035466; 7090137; 7121467.

Docking station or device: 5052943; 5195183; 5317691; 5331580; 5544010; 5644471.

There may be other U.S. and foreign patents pending.

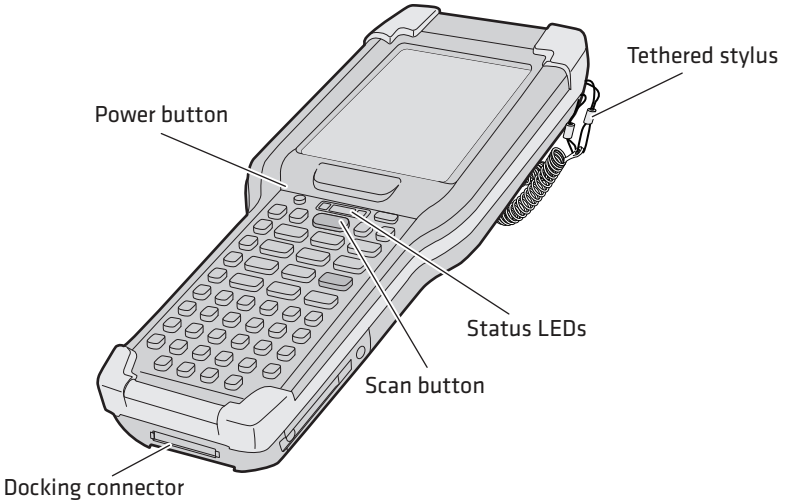
1
Using the Computer

This chapter introduces the CK3c Mobile Computer with Windows® Mobile® 6.1 and contains these topics:

- **Introducing the CK3c Mobile Computer**
- **What's New?**
- **Using the Battery**
- **Using the Keypad**
- **Understanding the Audio Features**
- **Using the Touch Screen**
- **Understanding the Status LEDs**
- **Scanning Bar Codes**
- **Using a microSD Card**

Introducing the CK3c Mobile Computer

The Intermec CK3c Mobile Computer is an ergonomically designed mobile computer built on the Microsoft® Windows® Mobile 6.1 operating system. The CK3c is lightweight, easy-to-use, and runs most software developed for the Windows Mobile platform, including standalone, client-server, and browser-based applications. In this manual, CK3c refers to both models CK3c and CK3c1, unless specifically stated otherwise.



CK3c Mobile Computer

The CK3c Mobile Computer with a DHIB 802.11b/g radio installed is Wi-Fi® certified for interoperability with other 802.11b/g wireless LAN devices.

The CK3c1 Mobile Computer with a DDIB 802.11a/b/g radio installed is Wi-Fi® certified for interoperability with other 802.11a/b/g wireless LAN devices.

The CK3c is available with the following features:

- 802.11b/g or 802.11a/b/g and Bluetooth® radio, standard

Note: The radio also supports the 802.11d standard. The 802.11d standard adds the requirements and definitions for 802.11 WLAN equipment to operate in markets not served by the current standard. For 802.11d support, you need to order the 802.11d version of the CK3c. For help, contact your local Intermec representative.

- 128 MB DRAM, 64 MB Flash
- 512 MB embedded SD Mass Storage Card
- Imaging options:
  - EV12 linear imager
  - EA20X extended range area imager
  - EX25B or EX25C near-far range area imager
- Intermec Client Pack (Optional):
  - Intermec Terminal Emulator, including 3270, 5250, and VT/ANSI, and support for third-party TE applications
  - Intermec Browser

Note: The Intermec Client Pack is not compatible with the new large 28-key numeric keypad option.

Use this manual to understand how to use the features and options available on the CK3c. For information about Windows Mobile 6.1 applications installed on the CK3c, refer to the online help.

What's New?

This version of the *CK3c Mobile Computer User's Manual* contains these enhancements:

- Corrected the connecting to a Bluetooth scanner section.
- Correct the follow appendix sections:
  - EA20X Extended Range Area Imager Minimum Reading Distances
  - Single Dock (AD20)

Using the Battery

The CK3c uses an AB17 standard or AB18 extended battery as its main power source. The standard battery has a 7.4 Watt hour capacity, and the extended battery has a 18.8 Watt hour capacity. Several factors determine the life of your battery, such as extreme temperatures, input devices, and your usage.

You must fully charge the battery before you can use the CK3c. When you change the battery, an internal super capacitor maintains your status, memory, and real-time clock for approximately 10 minutes.

The battery used in this device may present a fire or chemical burn hazard if it is mistreated. Do not disassemble it, heat it above 100°C (212°F) or incinerate it. Dispose of used batteries promptly. Keep away from children.

If you fail to replace the low battery immediately, you may lose important data or applications.

Note: If the CK3c is not using external power and you remove the battery pack, the CK3c goes into Suspend mode.

For replacement batteries, contact your Intermec representative.

Charging the Battery

Make sure you fully charge the AB17 or AB18 battery before you use your CK3c. You can charge the battery before or after you install it in the CK3c. A fully discharged battery charges in approximately 4 (AB17) to 7 (AB18) hours.

To charge the battery

- Insert the battery into the battery bay of the AD20 single dock, or insert up to four batteries into the AC20 quad battery charger.

  Or,

- Install the battery in the CK3c and insert the CK3c into the AD20 single dock, AD21 Ethernet multidock, AD22 charge-only multidock, AE33 vehicle battery adapter, or AV10 vehicle dock.

Use the next table to understand how long it takes to charge your batteries in each of the CK3c charger or dock accessories.

Charging Times for CK3c Batteries

CK3c Charging Accessory	AB17 Charging Time	AB18 Charging Time
AC20 quad battery charger	up to 4 hours	up to 6 hours
AD20 single dock	up to 4 hours	up to 6 to 7 hours
AD21 Ethernet multidock	up to 4 hours	up to 7 hours
AD22 charge-only multidock	up to 4 hours	up to 7 hours
AE33 vehicle battery adapter	up to 4 hours	up to 7 hours
AV10 vehicle dock	up to 4 hours	up to 7 hours

Removing and Installing the Battery

To maximize the time allowed to replace the main battery pack, put the CK3c in suspend mode before removing the battery pack.

To remove and install the battery

1. Press and hold ⏻ for about 2 seconds. When you release ⏻, the CK3c goes into suspend mode.
2. If necessary, disconnect the handstrap from the bottom of the CK3c.

3 Press the battery release tab toward the battery until the battery releases, and then lift it away from the CK3c.

4 Insert the battery into the CK3c, and press down on the battery until it clicks into place.

Maximizing Battery Life

Batteries are chemical devices. If the batteries are left sitting on a shelf for long periods of time outside the CK3c, the batteries slowly discharge, eventually to zero if left uncharged. The battery chemistry resists normal degradation if you store the battery in a charger as opposed to leaving the battery in a discharged state. See the following table for tips to maximize the life of your battery.

Battery Conservation Tips

When You Want To:	Do This to Save Battery Power:
Operate the CK3c and the Low Battery status icon appears or the Battery LED comes on.	Press ⏻ to turn off the CK3c. Remove the battery and insert another fully charged battery within 10 minutes or you may lose data. Or, you can connect the CK3c to an external power source.
Stop using the CK3c for 5 minutes or longer.	Make sure the low battery icon is not on the screen and that the Battery LED is not turned on. Press ⏻ to turn off the CK3c.
Store the CK3c for more than a day.	If you are storing the CK3c for a few days, like over the weekend, install the charged battery or attach the CK3c to a power source. If you are storing the CK3c for longer, remove and charge the battery, then store both the battery and the CK3c in a cool location. If the battery in storage is not used in several months, you should recharge the battery to keep it at its performance peak.
Store the battery outside the CK3c.	Store the batteries in a charger.

Checking the Battery Status

The easiest way to check the status of your battery is to look at the battery icon on the status bar of your CK3c.

Battery Icon Status

Icon	Status
	Battery is fully charged.
	Battery has a medium charge. You should be able to work for several more hours before changing batteries.
	Battery is low. You need to replace the battery soon.
	Battery is critically low. You need to replace the battery now.
	Battery is charging.

The Battery Status LED below your CK3c display indicates the charging status of your battery.

Understanding the Battery Status LED

LED State	Description
Steady green when the CK3c is connected to external power	The battery is more than 95% charged.
Blinking red	The battery is low. CK3c goes into Suspend mode. Charge or replace the battery.
Steady red when the CK3c is connected to external power	The battery is charging.
Steady red when the CK3c is **not** connected to external power	The software is not working properly.
Steady amber	The battery is missing or is unable to charge because the temperature is outside of the charging range.
Off	The CK3c is not on external power and the battery is operating normally.

Using the Keypad

Use the following sections to understand how to use the keypad. For information on remapping the keypad, you can download the Device IDL Resource Kit from the Intermec web site at **www.intermec.com/idl**.

CK3c Large 28-Key Numeric Keypad

The large numeric 28-key keypad is for browser-based applications that require heavy usage of numeric and navigation keys. This keypad also provides function keys by pressing color-coded key sequences.

CK3c Keypad

Using the Color-Coded Keys

The keypad provides color-coded keys to let you access additional characters, symbols, and functions printed on the keypad overlay. Once you understand how to use the color-coded keys and key sequences, you can access all of the additional features printed on the keypad overlay.

There are two color-coded modifier keys: the orange [◧] key and the green [◨] key.

Note: The large numeric keypad does not support alpha characters. However, you can remap keys and access them with the orange or green color-coded keys. To remap keys, you need the Device Resource Kit which is part of IDL. For help, go to **www.intermec.com/idl.**

Using the Color-Coded Keys

You Want to:	Press:	Example
Use an orange character or function printed above a key.	[◧] key (LED turns on) and then the key with the character or function printed above it (LED stays on).	Press [◧] and then [Q] to select the F18 function.

Using the Color-Coded Keys (continued)

You Want to:	Press:	Example
Use a green character or function printed above a key.	[◧] key (LED turns on) and then the key with the character or function printed above it (LED stays on).	Press [◨] and then [3] to select the **ok** function.
Unlock the green or orange key.	[◧] or [◨] once.	Press [◧] or [◨] once to unlock the key. The LED turns off.

Capitalizing Characters

You can capitalize characters individually, or you can type all capital letters by enabling Caps Lock.

To capitalize a single character

- Press the [◧] key, and then the [A] key to select the **Shift** function. Press the [◧] key, and the character.

To enable Caps Lock

- Press [◧], then the [B] key. Press [◧] again to disable the Caps Lock.

The Caps Lock LED lights up green to show that the CK3c is in the Caps Lock mode.

To disable Caps Lock

- Press the color modifier key again.

For information on how to enter specific characters with keystrokes, see **"Keypads and Keystrokes" on page 107**.

Using the Power Button

When you press the **Power** button (⏻), you put the CK3c into suspend mode. In this lower power mode, the CK3c continues to supply power to all memory, but turns off power to most hardware such as the display. This power-saving feature is designed to prolong battery life.

When you press ⏻ to turn the CK3c back on, your computer resumes at the screen that was displayed when you turned it off. If you are using WPA or 802.1x security, the CK3c may need to reauthenticate before it resumes your application.

If the battery light flashes and your CK3c does not resume after pressing ⏻, your battery may be too low to supply power. Replace the battery. If replacing the battery does not solve the problem, see **"Resetting the CK3c" on page 77**.

Configuring the Backlight Settings

By default, the CK3c goes into Screen Off mode when there is no activity on the computer. Screen Off mode turns off the backlight and display. Press a key or tap the screen to resume activity.

To configure the backlight

1. Tap **Start** > **Settings** > the **System** tab > the **Backlight** icon > the **Battery Power** tab.
2. With **Turn off backlight if device is not used for** checked, select the timeout value (10 seconds, 30 seconds, or 1 to 5 minutes).

You can also use Intermec Settings to configure the backlight settings.

Understanding the Audio Features

The CK3c has a speaker and multiple software tools for configuring the volume of sounds.

Adjusting the Volume of the Speaker

You can adjust the computer volume for your needs and your environment. The volume includes sounds you hear when you tap the screen or scan bar codes with a scanner. You can set the volume to off, very low, low, medium, high, and very high (default).

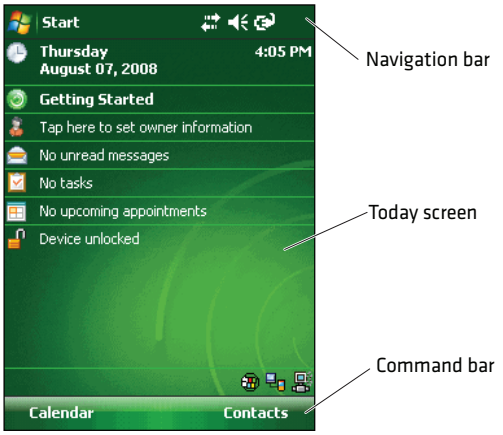
To adjust the volume of the speaker with the Volume icon

1. Tap the Volume (🔊) icon at the top of the screen.
2. Use your stylus to adjust the volume slider.

You can also use Intermec Settings to adjust the volume.

Using the Touch Screen

The CK3c has a 240 x 320 pixel color touch screen display. The Windows Mobile 6.1 start screen has three distinct areas: the navigation bar, today screen, and command bar.



Windows Mobile 6.1 Start Screen

To turn the screen backlight on and off

- For the alphanumeric keypad, press [◧D] [D].
- For the numeric keypad, press [☼].

Using the Stylus

Your computer has a stylus for selecting items and entering information on the touch screen.

Functions You Can Perform With the Stylus

Action	Description
Tap	Touch the screen once with the stylus to select options, open or close applications, or launch menus from the Command bar.
Drag	Hold the stylus on the screen and drag across the screen to select text and images.

Functions You Can Perform With the Stylus (continued)

Action	Description
Tap and hold	Tap and hold the stylus on an item to see a menu of actions available for that item. On the pop-up menu that appears, tap the action you want to perform.

Understanding the Screen Icons

Use the screen icons on the navigation bar and the command bar to see the network connection status and other system information. For information about the battery icons, see **"Checking the Battery Status" on page 7**. Some standard Microsoft icons are included in this table.

Screen Icons

Icon	Description
	The volume is turned off. To turn the volume back on, tap this icon and choose your setting.
	The computer is connected to the network.
	The computer is not connected to the network.
	The 802.11 radio is connected to the wireless network.
	The computer is connected through the USB port to your desktop PC.
	The iConnect application icon. Tap it to set up Ethernet or Wireless settings.

Aligning the Touch Screen

If the touch screen does not respond when you tap it with the stylus, you may need to calibrate the screen.

To calibrate the touch screen

1 Tap **Start** > **Settings** > the **Systems** tab > **Screen**.

Note: If the touch screen is so out of alignment that you cannot open the **Start** menu, you can try to align the screen menu using the keypad. For help, see the next procedure.

2 Tap **Align Screen** and follow the instructions to align the screen.

3 Click **ok**.

To align the touch screen using the keypad

1 Access the **Start** menu by pressing [◆D] [1].

2 Press the **Down** button to select **Settings**.

3 Press **Enter**.

4 Press the **Tab** button until the **Settings** tabs are highlighted.

5 Press the **Right Arrow** button to select the **System** tab.

6 Press **Tab** until the **Screen** icon is highlighted.

7 Tab to **Align Screen** and press **Enter**.

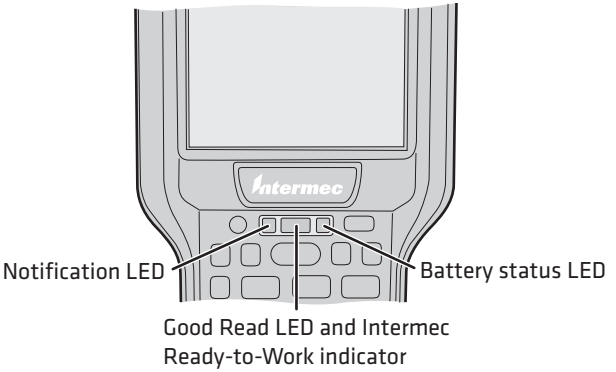
8 Follow the instructions to align the screen.

9 Click **ok**.

If you are still unable to align the touch screen, you can clean boot the CK3c. For help, see **"Clean Booting the CK3c" on page 78**.

Understanding the Status LEDs

The CK3c has three status LEDs.



Location of the Status LEDs

The next table describes the Notification LED, Good Read LED, and Intermec Ready-to-Work™ indicator. For information about the battery status LED, see **"Checking the Battery Status" on page 7**.

Understanding the Status LEDs

LED	Color	Description
Notification	Orange	The CK3c is notifying you of a pending alarm or message.
Good Read	Green	The CK3c has successfully decoded a bar code.
Intermec Ready-to-Work indicator	Blue	The CK3c is suspending or resuming with the display turned off.
	Blinking blue	You have successfully loaded and activated Intermec Terminal Emulator. Or the Intermec Terminal Emulator application is loaded, but is inactive.
	Off	The Intermec Terminal Emulator application is missing or disabled.

The blue LED usually turns off within 10 seconds, but it may stay on for up to 30 seconds. During this time, do not press the Power button ⏻ or remove the battery, or you may corrupt the data on your CK3c.

The Intermec Ready-to-Work indicator (blue LED) is used by Intermec's SmartSystems Foundation, an application that lets you manage all of your SmartSystems-enabled devices simultaneously from a central location. For more information, see **"Configuring the CK3c Remotely With SmartSystems Foundation" on page 33**, or contact your Intermec representative. Custom applications may also use the blue LED for other purposes.

Scanning Bar Codes

The CK3c ships with an internal imager to scan and enter bar code data. You can also connect to:

- cordless scanners, such as the SF51 and SR61 through Bluetooth communications. For help, see **"Connecting to a Bluetooth Scanner" on page 35**.
- tethered scanners, such as the SR30 and SR61T through the CK3 RS-232 adapter (Model AA21). For help, see the ***CK3 RS-232 Adapter (AA21) Instructions***.

Note: The CK3c with an EX25 near-far range area imager does not support connections to the SR61T.

The type of imager you are using and the type of bar code you are decoding determines the way you scan the bar code. Depending on the imager model, the CK3c supports reading 1D linear bar codes, 2D images, and composite and postal codes. You can identify the imager model by looking at the label inside the battery compartment.

By default, these bar code symbologies are enabled on the CK3c:

- Code 39
- Code 128/GS1-128

- DataMatrix (area imagers only)
- PDF417 (if supported)
- EAN/UPC

If you are using bar code labels that are encoded in a different symbology, you need to enable the symbology on the CK3c. Use Intermec Settings to enable and disable symbologies. For help, see **"Using Intermec Settings Directly on the CK3c" on page 31**.

The next two sections describe how to scan a bar code label with the linear imager, area imager, and near-far range area imager.

Scanning With the Linear Imager

If your CK3c has a linear imager, use the following procedure to practice scanning a bar code.

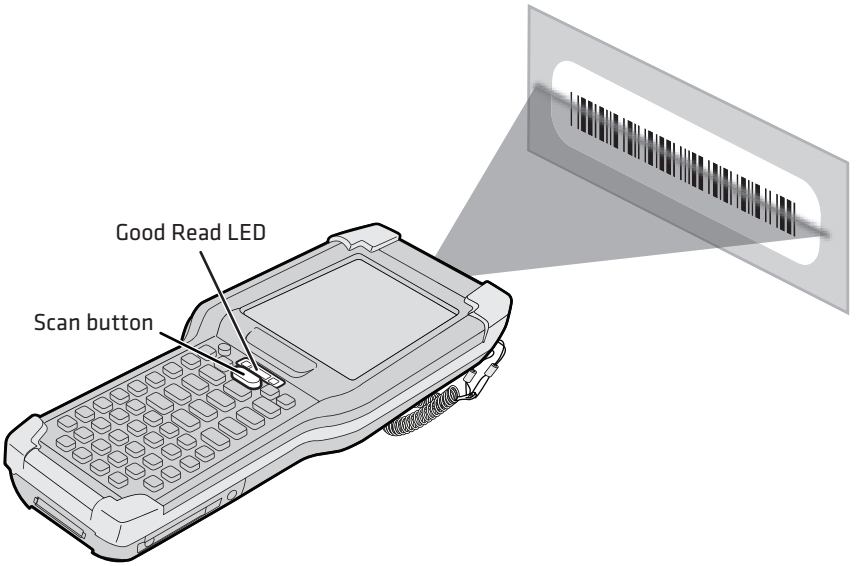
To scan bar code labels with the linear imager

1. Press ⏻ to turn on the CK3c.
2. Point the scanner window at the bar code label and hold the CK3c at a slight angle 15 to 25 cm (6 to 10 in) from the label.
3. Press the **Scan** button on the keypad, or pull the trigger on a handle, and direct the red beam so that it falls across all bars in the bar code label.

   Use this test bar code:

   Code 39 Test Bar Code

   123456



When the CK3c successfully reads a bar code label, the green Good Read LED turns on briefly.

4 Release the **Scan** button or trigger.

Scanning With an Area Imager

Your CK3c may come with one of two types of area imagers:

- Extended range area imager
- Near-far range area imager

Both area imagers are equipped with a laser pointer and framer to help you aim at bar codes, allow you to scan 2D bar code symbologies, and support omni-directional (360°) scanning. Omnidirectional scanning lets you position the CK3c in any orientation to scan a bar code label.

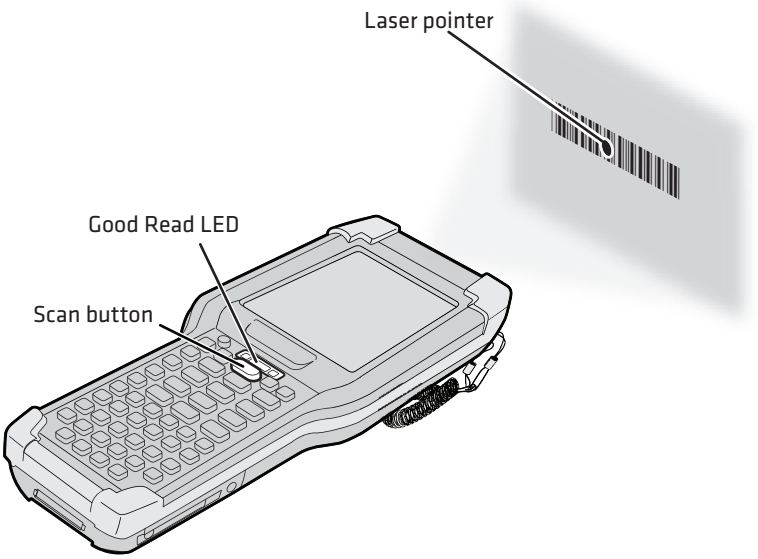
Scanning With the Extended Range Area Imager

1 Press ⏻ to turn on the CK3c.

2 Point the scanner window at the bar code label, and hold the CK3c steady a few inches from the label.

3 Press the **Scan** button or pull the trigger on your scan handle. The laser pointer and illumination beam and frame appear.

4 Use the laser pointer as a guide and aim toward the middle of the bar code. Make sure that the illumination frame covers the bar code you are trying to decode.



When the CK3c successfully reads a bar code label, the Good Read LED turns on briefly.

5 Release the **Scan** button or trigger.

Scanning With the Near-Far Range Area Imager

1 Press ⏻ to turn on the CK3c.

2 Point the scanner window at the bar code label.

3 Press the **Scan** button or pull the trigger. The illumination beam and laser pointer appear.

- For near or close-in scanning distances of 30 cm (11.8 in) or less, use the laser pointer as a guide and aim slightly to the right of the center of the bar code. Make sure the illumination beam covers the bar code you are trying to decode.

- For standard and long range scanning distances of 30 cm (11.8 in) or more, use the laser pointer as a guide and aim toward the middle of the bar code. Make sure that the illumination beam covers the bar code you are trying to decode.

When the CK3c successfully reads a bar code label, the Good Read LED turns on briefly.

4 Release the **Scan** button or trigger.

Improving the Performance of the Area Imager

If you experience problems scanning a bar code with the 2D imager, try these possible solutions:

- Keep your hand as steady as possible while scanning a label.
- Position the imager as close to the bar code as possible while still being able to capture the entire bar code.
- Enable only the bar codes that you need to use every day.
- Choose a Predefined mode in Intermec Settings:

  a Tap **Start** > **Settings** > the **System** tab > **Intermec Settings**.

  b Tap **Data Collection** > **Internal Scanner** > **Imager Settings** > **Predefined Modes** and then select one of these options:

Predefined Mode	Select if You Are Scanning:
1D	Only 1D labels.
1D and 2D Standard	All types of bar code labels.
1D and 2D Bright Environment	In high ambient light, such as outdoors in the sunshine.
1D and 2D Reflective Surface	Glossy labels.
Custom	In conditions that require customized settings. For more information about these settings, commands, and parameters, see the ***Intermec Settings Command Reference Manual*** available from the Intermec web site at **www.intermec.com**.

- If you are scanning multiple bar codes in a small area, use one of these parameters:
  - Aiming beam activation
  - Aim triggering mode
  - Center decoding

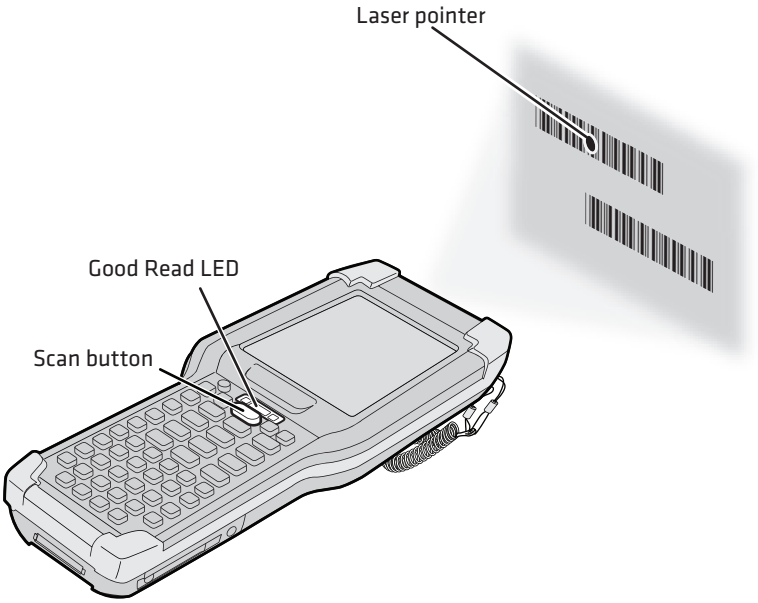
  To enable these parameters, use Intermec Settings. For help, see **"Using Intermec Settings Directly on the CK3c" on page 31**.

  For help scanning using center-decoding, see the next procedure.

To scan a bar code using center-decoding

1. Press ⏻ to turn on the CK3c.
2. Point the scanner window at the bar code label.
3. Press the **Scan** button or pull the trigger. The illumination beam and the laser pointer appear.
4. Aim both the illumination beam and the laser pointer at the bar code you want to scan.

Note: The center-decoding parameter only decodes a bar code if the laser pointer is on the bar code and the illumination beam covers the bar code.



When the CK3c successfully reads a bar code label, the green Good Read LED turns on briefly.

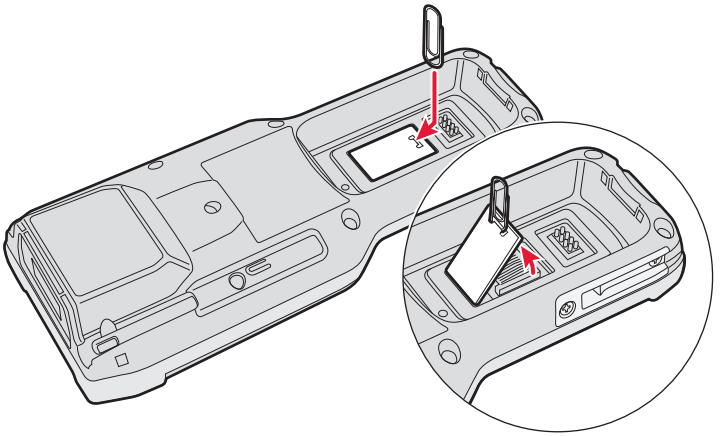
Using a microSD Card

You can use a micro Secure Digital (SD) card to increase file storage and install software. Your CK3c supports microSD™ cards that hold up to 2 GB of information. The microSD card slot is located in the battery compartment.

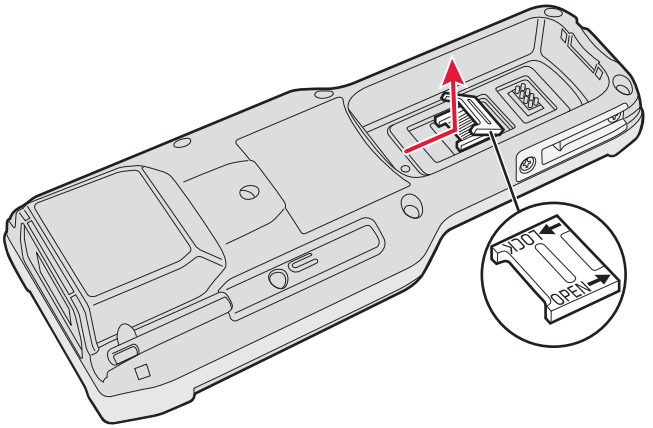
To install a microSD card

1 Remove the battery. For help, see **"Removing and Installing the Battery" on page 5**.

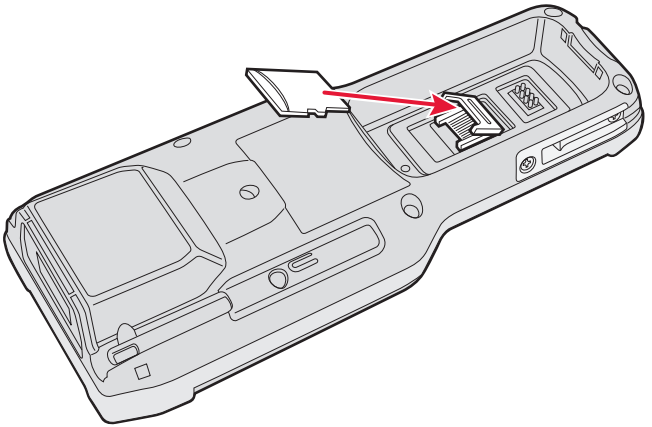
2 Use a paper clip or slotted screwdriver to remove the cover.



3 Slide the microSD card cover toward the OPEN position and lift the cover.



4 Insert the microSD card.



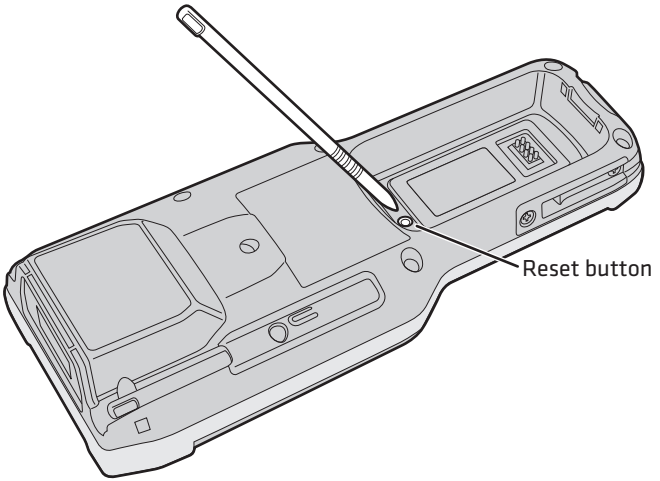
5 Close the microSD card cover, and slide the cover toward the LOCK position.

6 Replace the cover.

7 Use the stylus to press the reset button in the battery compartment of the CK3c.

Caution

Do not use force or a sharp object when pressing the reset button. You may damage the reset button.



8 Install the battery.

9 Press ⏻ to turn on the CK3c:

- You should be able to navigate to the SDMMC Disk folder and see the contents of the microSD card.
- If the microSD card is bootable, your CK3c boots from the card.
- If the microSD card contains operating system upgrade files, the upgrade process automatically starts. For more information, see **"Upgrading the System Software" on page 60**.

For troubleshooting information, see **"Troubleshooting Your CK3c" on page 67**.

2

Connecting and Configuring the CK3c

Use this chapter to understand how to configure the CK3c to communicate in your network. This chapter contains these topics:

- **Managing the CK3c Using SmartSystems Foundation**
- **Connecting to a PC**
- **Configuring the CK3c Parameters**
- **Configuring the CK3c for Your Network**
- **Configuring Wireless Security**

Managing the CK3c Using SmartSystems Foundation

Intermec's SmartSystems™ Foundation is a software platform that lets you manage all of your SmartSystems-enabled devices, including the CK3c, simultaneously from a central server. The SmartSystems console displays all SmartSystems-enabled computers and peripherals in your network.

Through the console, you can:

- drag-and-drop configuration bundles, operating system updates, and firmware upgrades to multiple computers.
- save configuration settings from a single device and deploy those settings to many devices simultaneously.
- remotely change settings on SmartSystems-enabled computers and peripherals.

The SmartSystems console can report on asset locations and battery status, making it easier to manage your mobile devices.

With an AutoDeploy license, SmartSystems can automatically push software, configuration settings, and other files to connected CK3cs. The license also enables Scan-to-Connect, which makes connecting additional CK3cs to your wireless network as easy as reading bar codes.

SmartSystems Foundation can be downloaded at no charge from the Intermec web site. For more information, visit **www.intermec.com\SmartSystems**. To purchase an AutoDeploy license, contact your local Intermec sales representative.

Connecting to a PC

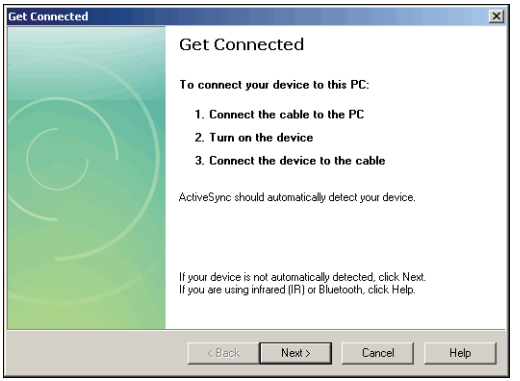
You can use Microsoft ActiveSync to establish a connection between your CK3c and PC. ActiveSync lets you transfer files, synchronize files, remotely debug, and perform other device management activities. ActiveSync is a free application available from the Microsoft web site.

To establish an ActiveSync partnership between your CK3c and PC, you need to physically connect your CK3c to your PC using these accessories:

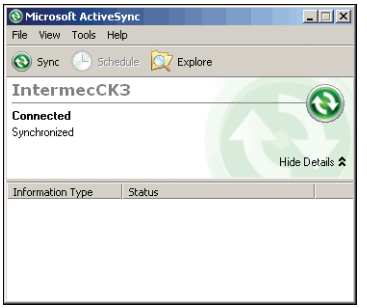
- AD20 single dock
- USB to mini-USB cable

To establish an ActiveSync partnership

1. Download ActiveSync from the Microsoft web site and install ActiveSync on your PC. When installation is complete, the Get Connected dialog box appears.



2. Follow the onscreen instructions to establish a partnership. When the partnership is established, the Microsoft ActiveSync screen appears on your PC.



Configuring the CK3c Parameters

You can configure many parameters on the CK3c such as the bar code symbologies it decodes or the network settings. The values you set for these parameters determine how the CK3c operates.

Operating parameters can be viewed and changed on the CK3c by using the Intermec Settings application on the computer. There are two ways to access Intermec Settings:

- Remotely via Intermec SmartSystems Foundation. When you use SmartSystems, you can remotely configure all your CK3c computers as well as other SmartSystems-enabled Intermec computers and peripherals. For more information, see the next section.
- Directly on the CK3c. Using Intermec Settings on the CK3c changes only the settings on that computer. For more information, see **"Using Intermec Settings Directly on the CK3c" on page 31**.
- You can use a third-party device management product that includes Intermec Settings Configuration Support, such as the Microsoft System Center Mobile Device Manager. Visit **http://www.microsoft.com/systemcenter/mobile** for more information.

You can also configure the CK3c with configuration bundles that you create using SmartSystems Foundation. For more information, see the SmartSystems Foundation online Help.

Using Intermec Settings Remotely With SmartSystems Foundation

Your CK3c is SmartSystems-enabled, which lets you open Intermec Settings from the SmartSystems console to remotely configure all of your CK3c computers.

For more information on SmartSystems, see **"Managing the CK3c Using SmartSystems Foundation" on page 28**.

To open Intermec Settings from the SmartSystems console

1 In the SmartSystems console, right-click a CK3c.

2 Select **Intermec Settings**.

3 Change settings as needed. As you choose parameters, information on each parameter appears in the upper right pane of the Intermec Settings browser.

4 When you are done making changes, choose **File** > **Save Settings**.

For help with using Intermec Settings, in the browser click **Help** > **Contents**.

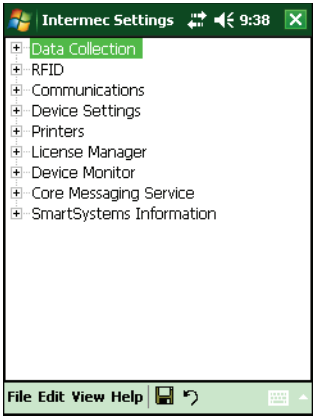
For information on all parameters in Intermec Settings, see the *Intermec Settings Command Reference Manual*.

Using Intermec Settings Directly on the CK3c

Use Intermec Settings on the CK3c to comfigure the computer and view system information.

To open Intermec Settings

- Tap **Start** > **Settings** > the **System** tab > **Intermec Settings**.



For information about each command, see the *Intermec Settings Command Reference Manual*.

Navigating in Intermec Settings

To Perform This Action	Do This
Select a command.	Tap the command or use the up and down arrow keys.
Expand a command.	Tap the command or use the left and right arrow keys.

Navigating in Intermec Settings (continued)

To Perform This Action	Do This
Select text in a text box.	Tap in the text box and drag the stylus over the text.
Save your settings.	Tap **File** > **Save Settings** or tap .

Hiding Menu Items in Intermec Settings

In Intermec Settings, you can hide items in the CK3c menus, or in the directory tree in the SmartSystems console. Hidden items are not saved when you back up your settings in the SmartSystems console.

In Intermec Settings in the SmartSystems console:

- To hide menu items, right-click a menu item and choose **Hide Menu Item** from the popup list. Click **Yes** to clear the confirming message.
- To restore menu items, click the CK3c name at the top of the directory tree to select it, and then choose **View** > **Unhide Items**. All hidden menu items are restored.

In Intermec Settings on the CK3c:

- To hide menu items, tap and hold the item, and then choose **Hide Menu Item** from the popup list. Tap **Yes** to clear the confirming message.
- To restore hidden items in a single menu, tap and hold the menu bar where the item was hidden, and then choose **Restore Item Default** from the popup list.
- To restore all hidden items in all menus, tap **Menu** > **Unhide All Items**.

Note: When you restore default settings in Intermec Settings, only the settings for visible items are restored to defaults. The settings for hidden menu items are not affected. For more information, see the SmartSystems Foundation online Help.

Configuring the CK3c Remotely With SmartSystems Foundation

Intermec's SmartSystems Foundation lets you manage all of your SmartSystems-enabled devices simultaneously from a central location. The SmartSystems console displays all of the SmartSystems-enabled devices in your network.

Your CK3c is SmartSystems-enabled, which lets you open Intermec Settings from the SmartSystems console to remotely configure all of your CK3c computers.

To open Intermec Settings from the SmartSystems console

1. In the SmartSystems console, right-click a CK3c.
2. Select **Intermec Settings**.

For more information about SmartSystems Foundation, go to the Intermec web site at **www.intermec.com/products/smrtsysfoundation/index.aspx**.

Configuring the CK3c for Your Network

The CK3c is a versatile mobile computer that you can easily add to your wireless or wired data collection network. You can connect your CK3c using:

- 802.11b/g or 802.11a/b/g radio communications.
- Bluetooth communications.
- Ethernet communications.
- USB and serial communications.

Configuring 802.11 Radio Communications

Make sure all components with antennas are at least 30 cm (1 ft) apart when power is applied. Failure to comply could result in equipment damage.

Your CK3c has an 802.11b/g or 802.11a/b/g radio to transfer data using wireless communications. This section assumes that your wireless network is set up, including your access points.

To configure 802.11 radio parameters

1. Tap **Start** > **Settings** > the **Systems** tab >Intermec Settings.
2. Tap **Communications** > **802.11 Radio** > **Funk Security** > **[Profile #]** > **SSID**.
3. Enter your SSID (network name).
4. If you are not using DHCP, tap **IP Settings** and configure your network settings.
5. Make sure that your CK3c is talking to the network and that the network can see your CK3c.
6. Configure security. For help, see **"Configuring Wireless Security" on page 40**.

Configuring Bluetooth Communications

You CK3c is Bluetooth™-enabled, which lets you connect to other Bluetooth devices, such as:

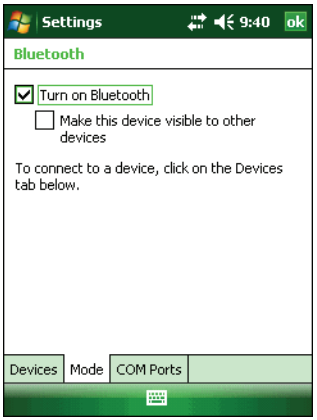
- scanners.
- printers.

You need to turn on the Bluetooth radio before you can discover and connect to other Bluetooth devices. By default, the radio is turned off.

To turn on the Bluetooth radio

1. Tap **Start** > **Settings** > the **Connections** tab > **Bluetooth** > the **Mode** tab.

2 Tap **Turn on Bluetooth**.



3 (Optional) If you want your CK3c to be visible to other Bluetooth devices, tap **Make this device visible to other devices**.

4 Click **ok**.

The Bluetooth radio maintains its current state through a warm or cold boot and maintains virtual COM ports. But, if you clean boot your CK3c, you need to recreate pairings to devices.

You can also access Bluetooth settings using Intermec Settings.

To access Bluetooth settings using Intermec Settings

- In Intermec Settings, tap **Communications** > **Bluetooth**.

For more information about Bluetooth settings, see the ***Intermec Settings Command Reference Manual***.

Connecting to a Bluetooth Scanner

You can connect to an Intermec Bluetooth scanner, such as the SF51 or SR61, using one of these methods:

- Create and scan a connection configuration label using EasySet.
- Run the Wireless Scanning Wizard.

Note: For both methods, you need the Bluetooth address. The Bluetooth address is on the labels located on the outside of the CK3c shipping box, and on the packet of information that ships with the mobile computer.

To create a connection configuration label using EasySet

1. Download EasySet from the Intermec website at **www.intermec.com**.
2. Click the **Products** tab.
3. Using the Products page, navigate to your product page. Click **Computers > Handheld Computers > CK3 > Downloads** tab **> EasySet ver. 5.6.4.2.**
4. Follow the instructions to download EasySet.
5. Open EasySet.
6. Select **Interface > Bluetooth > Connect/disconnect > Compose BT addess:.** The Bluetooth - Connect/disconnect - Compose BT addess screen appears.
7. Enter the BT address listed on the labels.
8. Click **OK.**

To connect to a Bluetooth scanner with a connection configuration label

1. Make sure that the Bluetooth radio on your CK3c is enabled and that your CK3c is visible and connectable.
2. Make sure that your Bluetooth scanner is on.
3. With your Bluetooth scanner, scan the Bluetooth EasySet connection configuration label.
4. When prompted, enter the passcode for your scanner. The default passcode for Intermec Bluetooth scanners is `0000`.
5. Tap **Finish**.

To connect to a Bluetooth scanner with the Wireless Scanning Wizard

1 Select **Start** > **Settings** > the **System** tab > **Wireless Scanning**.

2 Follow the onscreen instructions to connect to a scanner.

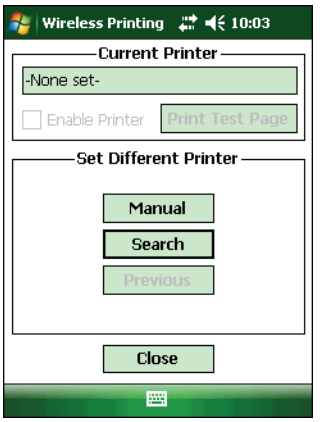
Configuring Bluetooth Communications for Wireless Printing

To configure your CK3c for Bluetooth wireless printing, you need to:

- make sure Bluetooth power is on. For help, see the procedure in **"Configuring Bluetooth Communications" on page 34**.
- create an application that opens the wireless printing COM port on your CK3c. For help, see the Bluetooth Resource Kit, part of the Intermec Developer Library (IDL), available from the Intermec web site at **www.intermec.com/idl**.
- select the current wireless printer on the CK3c. For help, see the next procedure.

To select the current wireless printer

1 Select **Start** > **Settings** > the **System** tab > **Wireless Printing**.



2 Tap **Search** to find a printer, or tap **Manual** to enter a device address. Follow the onscreen instructions to select the current wireless printer.

3 (Optional) Tap **Print Test Page**. The printer prints out the test page.

Note: You can also print wirelessly using Microsoft APIs with Bluetooth extensions for Winsock and Bluetooth virtual COM ports. For help, see the IDL, available from the Intermec web site at **www.intermec.com/idl**.

Configuring Ethernet Communications

You connect your CK3c to your Ethernet network with an Ethernet cable and one of these accessories:

- AD20 single dock with an AA12 Ethernet adapter
- AD21 Ethernet multidock

To use your CK3c in an Ethernet network

1 Connect your CK3c to an Ethernet network with an AD20 or AD21. Ethernet communications is automatically enabled on your CK3c.

2 Configure these network parameters:

- If you have a DHCP server, enable DHCP.
- If you do not have a DHCP server, set these parameters:
  - **a** IP address
  - **b** Subnet mask
  - **c** Default router

3 If necessary, set these parameters:

- Primary and secondary DNS servers
- Primary and secondary WINS servers

4 Make sure that your CK3c is communicating with the network and that the network can see your CK3c.

Using Serial and USB Communications

You can use these CK3c accessories to transmit data to and receive data from another device through serial or USB communications:

- AD20 single dock
- AV10 vehicle dock
- AA21 RS-232 adapter

For more information about these accessories and how to order them, see **"Accessories" on page 94**.

Checking the Status of Your Wireless Connection

After you configure your wireless settings, you can use iConnect to check the status of your connection. You can also use iConnect to configure the network settings and test the connection of your CK3c against the network.

To check the status of your wireless connection

1 Tap the iConnect icon ( ) in the lower right corner of the Today screen.

2 From the iConnect menu, select **Status** > **Wireless**. The Wireless Status screen appears and checks the connection.

To configure the network settings

- From the iConnect menu, tap **Tools** > **Wireless Settings**.

To test the connection of your CK3c against your network

- From the iConnect menu, select **Tools** > **Ping Test**.

Configuring Wireless Security

The CK3c provides four types of security for your wireless network:

- Wi-Fi Protected Access 2 (WPA2™)
- Wi-Fi Protected Access (WPA)
- 802.1x
- WEP

This section explains how to configure wireless security on your CK3c. If you choose not to use security, see **"Disabling Security" on page 51**. Intermec recommends that you always implement security.

You must use either Funk or Microsoft security to implement your security solution. For details, see the next section, **"Choosing Between Funk and Microsoft Security."**

If you are using WPA-802.1x, WPA2-802.1x, or 802.1x security, this section also assumes that your authentication server and authenticators are properly configured.

Note: Your security choice does not depend on your authentication server. For example, you can choose Funk security if you use Microsoft Active Directory® to issue certificates.

Choosing Between Funk and Microsoft Security

The CK3c supports both Funk and Microsoft security. The option you choose depends on your network security needs.

Understanding Microsoft and Funk Security

Security Choice	Description
Microsoft	Microsoft security dynamically selects wireless networks based on your preferences. If you are primarily using the CK3c to connect to Wi-Fi hotspots, you may want to use Microsoft security. To use Microsoft security, you need to select it as your security choice. For help, see **"Selecting Microsoft as Your Security Choice" on page 46**.
Funk (default)	Funk security offers features that are similar to Microsoft security, but Funk also offers these features: • CCX v4.0 compliance • Support for LEAP and TTLS • Configuration of up to four profiles If you are using the CK3c in a static environment that requires a high level of security, you should use Funk security. To use Funk security, you need to select a profile. For help, see the next section, **"Selecting a Funk Security Profile."**

Selecting a Funk Security Profile

You can define up to four profiles for Funk security. Different profiles let your CK3c communicate in different networks without having to change all of your security settings. For example, you may want to set up one profile for the manufacturing floor and one for the warehouse. By default, the active profile is Profile 1.

Note: You can also use the Profile Wizard to configure most wireless security settings. To start the Profile Wizard, tap the iConnect icon ( ) in the lower right corner of the Today screen and select **Tools** > **Wireless Settings**.

To select a Funk security profile

1. Start Intermec Settings.
2. Choose **Communications** > **802.11 Radio** > **Funk Security**.

3 Tap a profile to expand it.

4 (Optional) In the **Profile Label** text box, enter a meaningful name for your profile.

5 Configure your security settings. For help, see the next sections.

6 Repeat Steps 3 through 5 for each profile you want to define.

7 Select one profile as the active profile by tapping **Active Profile** and choosing a profile from the list.

8 Save your settings.

Configuring WPA Security With Funk Security

Use these procedures to set WPA-802.1x, WPA2-802.1x, WPA-PSK, or WPA2-PSK security on your CK3c with Funk security.

To configure WPA-802.1x or WPA2-802.1x with Funk security

1 Make sure the communications and radio parameters on your CK3c are configured.

2 Make sure Funk is selected as your security choice.

3 Start Intermec Settings.

4 Choose **Communications** > **802.11 Radio** > **Funk Security**.

5 Select the profile you want to configure.

6 For **Association**, choose **WPA** or **WPA2**. Encryption automatically defaults to **TKIP** or **AES**, respectively.

7 For **8021x**, choose **TTLS**, **PEAP**, **EAP-FAST**, or **TLS** and press **Enter**.

8 If you choose **TTLS** or **PEAP**:

a For **Prompt for Credentials**, choose **Enter credentials now**.

Note: You can use **Prompt for Credentials** to troubleshoot your network connection.

b Tap **User Name**, enter your user name, and press **Enter**.

c Tap **User Password**, enter your password, and press **Enter**.

d For **Validate Server Certificate**, choose **Yes** and press **Enter**.

Note: The correct date must be set on your CK3c when you enable **Validate Server Certificate**.

If you choose **TLS**:

a Load a user and root certificate on your CK3c. For help, see **"Loading a Certificate" on page 49**.

b Enter a **User Name** and **Subject Name**.

c For **Validate Server Certificate**, choose **Yes** and press **Enter**.

d (Optional) To increase your level of security, enter a **Server 1 Common name** and a **Server 2 Common name**.

9 Save your settings and exit Intermec Settings.

To configure WPA or WPA2 with Funk security

1 Make sure the communications and radio parameters on your CK3c are configured.

2 Make sure Funk is selected as your security choice.

3 Start Intermec Settings.

4 Choose **Communications** > **802.11 Radio** > **Funk Security**.

5 Select the profile you want to configure.

6 For **Association**, choose **WPA** or **WPA2** and press **Enter**.

7 For **8021x**, choose **None** and press **Enter**.

8 For **Pre-Shared Key**, enter the pre-shared key or passphrase.

The pre-shared key must be a value of 32 hex pairs preceded by 0x for a total of 66 characters. The value must match the key value on the access point. The passphrase must be from 8 to 63 characters. After you enter a passphrase, the CK3c internally converts it to a pre-shared key.

This value must match the passphrase on the authenticator.

9 Save your settings and exit Intermec Settings.

Configuring 802.1x Security With Funk Security

1. Make sure the communications and radio parameters on your CK3c are configured.
2. Make sure Funk is selected as your security choice.
3. Start Intermec Settings.
4. Choose **Communications** > **802.11 Radio** > **Funk Security**.
5. Select the profile you want to configure.
6. For **Association**, choose **Open** and press **Enter**.
7. For Encryption, choose **WEP** and press **Enter**.
8. For **Authentication**, choose **TTLS**, **PEAP**, or **TLS** and press **Enter**.
9. If you choose **TTLS** or **PEAP**:
   a. Tap **User Name**, enter your user name, and press **Enter**.
   b. Tap **Password prompt**, choose **Enter password now**, and press **Enter**.

   Note: You can use **Password prompt** to troubleshoot your network connection.

   c. Tap **User Password**, enter your password, and press **Enter**.
   d. For **Validate Server Certificate**, choose **Yes** and press **Enter**.

   If you choose **TLS**:
   a. Load a user and root certificate on your CK3c. For help, see **"Loading a Certificate" on page 49**.
   b. For **Validate Server Certificate**, choose **Yes** and press **Enter**.
   c. Enter a **User Name** and **Subject Name**.
   d. (Optional) To increase your level of security, enter a **Server 1 Common name** and a **Server 2 Common name**.
10. Save your settings and exit Intermec Settings.

Configuring LEAP Security on Your CK3c

1. Make sure the communications and radio parameters on your CK3c are configured.
2. Make sure Funk is selected as your security choice.
3. Start Intermec Settings.
4. Choose **Communications** > **802.11 Radio** > **Funk Security**.
5. Select the profile you want to configure.
6. For **8021x**, choose **LEAP** and press **Enter**.
7. For **Association**, choose **Open**, **WPA**, **WPA2**, or **Network EAP** and press **Enter**. Encryption automatically defaults to **TKIP** if you choose WPA, **AES** if you choose WPA2, and **WEP** if you choose Open or Network EAP.
8. For **Prompt for Credentials**, choose **Enter credentials now**.
9. Tap **User Name**, enter your user name, and press **Enter**.
10. Tap **User Password**, enter your password, and press **Enter**.
11. Save your settings and exit Intermec Settings.

Configuring Static WEP Security With Funk Security

1. Make sure the communications and radio parameters on your CK3c are configured.
2. Make sure Funk is selected as your security choice.
3. Start Intermec Settings.
4. Choose **Communications** > **802.11 Radio** > **Funk Security**.
5. Select the profile you want to configure.
6. For **Association**, choose **Open** and press **Enter**.
7. For **Encryption**, choose **WEP** and press **Enter**.
8. For **8021x**, choose **None**.
9. Define a value for the keys you want to use. You can define up to four keys (**Key 1** through **Key 4**).

   Enter an ASCII key or a hex key that is either 5 bytes or 13 bytes long depending on the capability of the radio. Set a 5- byte value

for 64-bit WEP or a 13-byte value for 128-bit WEP. Hex keys must be preceded by 0x and contain 5 or 13 hex pairs.

10 For **Transmit key**, choose the key you want to use for transmitting data.

11 Save your settings and exit Intermec Settings.

Selecting Microsoft as Your Security Choice

The default security setting is Funk. If you want to use Microsoft security, you need to select it as your security choice. After you select Microsoft as your security choice, you will be prompted to save your settings and reset your CK3c for your change to take effect.

With Microsoft as your security choice, you can configure:

- WPA.
- 802.1x.
- Static WEP.

To select Microsoft security as your security choice

1 Select **Start** > **Settings** > the **System** tab > **Intermec Settings**. The Intermec Settings application appears.

2 Select **Communications** > **802.11 Radio** > **Security Choice**.

3 From the **Security Choice** list, select **Microsoft Security** and save your settings. An alert box appears telling you that you must save your settings and warm boot the CK3c for the new security choice to take effect.

4 Tap **Yes**. The CK3c resets and starts with Microsoft Security as the Security Choice.

Configuring WPA Security With Microsoft Security

Use these procedures to set WPA-802.1x and WPA-PSK security on your CK3c with Microsoft security.

To enable WPA-802.1x with Microsoft security

1 Make sure the communications and radio parameters on your CK3c are configured.

2 Start Intermec Settings.

3 Choose **Communications** > **802.11 Radio** > **Microsoft Security**.

4. For **Infrastructure Mode**, choose **Infrastructure**.
5. For **Network Authentication**, choose **WPA**. **Data Encryption** automatically defaults to **TKIP**.
6. For **802.1x Authentication**, choose either **TLS** or **PEAP**.
7. If you choose **TLS**:
   a. Select **Properties** and tap the **Run App** button. The Auth. Settings dialog box appears.
   b. Tap the **Select** button.
   c. Select your certificate from the list and press **Enter**. The User Logon dialog box appears.
   d. Enter a **User Name** and **Domain** and press **Enter**.

   If you choose **PEAP**:
   a. Select **Properties** and tap the **Run App** button. The Auth. Settings box appears.
   b. Select **Validate Server** and press **Enter**. When the radio starts to authenticate, the Network Password dialog box appears.
   c. Enter a **User Name** and **Password** and select **Save Password**.
   d. (Optional) In the **Domain** field, enter the Active Directory domain associated with the user account.
   e. Press **Enter**.
8. Save your settings and exit Intermec Settings.

To enable WPA-PSK With Microsoft Security

1. Make sure the communications and radio parameters on your CK3c are configured.
2. Start Intermec Settings.
3. Choose **Communications** > **802.11 Radio** > **Microsoft Security**.
4. For **Infrastructure Mode**, choose **Infrastructure**.
5. For **Network Authentication**, choose **WPA-PSK**. **Data Encryption** automatically defaults to **TKIP**.
6. For **Pre-Shared Key**, enter the pre-shared key or the passphrase.

The pre-shared key must be a value of 32 hex pairs preceded by 0x for a total of 66 characters. The value must match the key value on the authenticator. The passphrase must be from 8 to 63 characters. After you enter a passphrase, the CK3c internally converts it to a pre-shared key.

This value must match the passphrase on the authenticator.

7 Save your settings and exit Intermec Settings.

Configuring 802.1x Security With Microsoft Security

1 Make sure the communications and radio parameters on your CK3c are configured.

2 Start Intermec Settings.

3 Choose **Communications** > **802.11 Radio** > **Microsoft Security**.

4 For **Infrastructure Mode**, choose **Infrastructure**.

5 For **Network Authentication**, choose **Open**.

6 For **Data Encryption**, choose **WEP**.

7 For **802.1X Authentication**, choose **TLS** or **PEAP**.

8 If you choose **TLS**:

- **a** Select **Properties** and tap the **Run App** button. The Auth. Settings box appears.
- **b** Tap the **Select** button.
- **c** Select your certificate from the list and press **Enter**. The User Logon dialog box appears.
- **d** Enter a **User Name** and a **Domain**. and press **Enter**.

If you choose **PEAP**:

- **a** Select **Properties** and tap the **Run App** button. The Auth. Settings box appears.
- **b** Select **Validate Server** and press **Enter**. When the radio starts to authenticate, the Network Password dialog box appears.
- **c** Enter a **User Name** and **Password** and select **Save Password**.
- **d** (Optional) In the **Domain** field, enter the domain.
- **e** Press **Enter**.

9 For **Network Key Setting**, choose **Automatic**.

10 Save your settings and exit Intermec Settings.

Configuring Static WEP Security With Microsoft Security

1 Make sure the communications and radio parameters on your CK3c are configured.

2 Start Intermec Settings.

3 Choose **Communications** > **802.11 Radio** > **Microsoft Security**.

4 For **Network Authentication**, choose **Open**.

5 For **Data Encryption**, choose **WEP**.

6 For **Network Key Setting**, choose **Enter Key and Index**.

7 For **Network Key Value**, enter an ASCII key or a hex key that is either 5 bytes or 13 bytes long depending on the capability of the radio.

Set a 5-byte value for 64-bit WEP or a 13-byte value for 128-bit WEP. Hex keys must be preceded by 0x and contain 5 or 13 hex pairs.

8 For **Network Key Index**, select the key you want to use for data transmission.

9 Save your settings and exit Intermec Settings.

Loading a Certificate

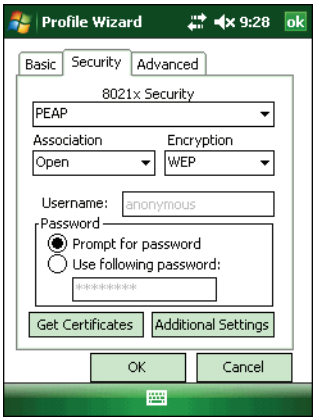
If you choose to use transport layer security (TLS) with WPA or 802.1x security, you need a unique client certificate on the CK3c and a trusted root certificate authority (CA) certificate. Certificates are pieces of cryptographic data that guarantee a public key is associated with a private key. They contain a public key and the entity name that owns the key. Each certificate is issued by a certificate authority.

To import a certificate

1 Tap the iConnect icon ( ) in the lower right corner of the Today screen. The iConnect pop-up menu appears.

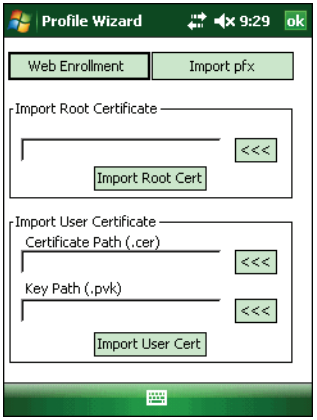
2 Select **Tools** > **Wireless Settings**. The Profile Wizard appears.

3 Tap **Edit Selected Profile** > the **Security** tab.



4 For **8021x Security**, select **PEAP**, **TLS**, or **TTLS**.

5 Tap **Get Certificates**.



6 To import a root certificate:

a Tap the **<<<** button next to the **Import Root Certificate** field to select the root certificate (DER-encoded .cer file) to import.

b Click **Import Root Cert** to install the selected certificate.

To import a user certificate:

a Tap the **<<<** button next to the **Certificate Path** field to select the user certificate (DER-encoded .cer file without the private key) to import.

b Tap the **<<<** button next to the **Key Path** field to select the private key (.pvk file) which corresponds to the user certificate you selected.

To import a certificate from an IAS server:

a Tap **Web Enrollment**.

b Enter the **User**, **Password**, and **Server** (IP address) to log into the server.

c Tap **OK**. A dialog box appears asking if you want to load the root certificate.

d Tap **OK**. The Enrollment Tool message box appears telling you that the certificate has been added.

e Tap **OK** to close the message box.

Disabling Security

If you choose not to use security with your wireless network, you can disable it on the CK3c. Intermec recommends that you always set security in your network.

To disable security

1. Open Intermec Settings.
2. Choose **Communications** > **802.11 Radio** > **Microsoft Security**.
3. For **Network Authentication**, choose **Open**.
4. For **Data Encryption**, choose **Disabled**.
5. Close Intermec Settings.

3
Developing and Installing Applications

This chapter contains guidelines for developing applications for the CK3c and contains these sections:

- **Developing Applications for the CK3c**
- **Installing Applications on the CK3c**
- **Freeing Up Virtual Memory for Applications**
- **Launching an Application Automatically**
- **Upgrading the System Software**

Developing Applications for the CK3c

Use the Intermec Resource Kits to develop applications to run on the CK3c. The Resource Kits are a library of C++, .NET, Java, and web components grouped by functionality that you can use to create applications for the computer. The Resource Kits are part of the Intermec Developer Library (IDL), and can be downloaded from the Intermec web site at **www.intermec.com/idl**.

For more information, see the ***Intermec Developer Library Resource Kit Developer's Guide***.

Packaging Your Application

For very simple applications, the executable file may be the only file you need to deploy. More typically, you will have a set of files to install.

Intermec recommends using .cab files to install your applications. The CK3c uses standard Windows Mobile .cab files and will install third-party .cab files.

Choosing a Target Location

You can have your .cab file place your application in any of these memory locations on the CK3c:

- The ObjectStore.
- The optional microSD card. Depending on available disk space, you may want to consider installing your application files on the microSD card. Using a card creates the Storage Card folder on the CK3c.
- The non-volatile Flash File Store. Applications and data in the Flash File Store will persist through a clean boot.

Note: The Flash File Store may be erased if you reflash the image.

Installing Applications on the CK3c

You can install applications on your CK3c by using:

- SmartSystems Foundation.
- Microsoft ActiveSync.
- a microSD card.
- the CK3c FTP server.

For more information on installing applications, see the ***Intermec Developer Library Resource Kit Developer's Guide***.

Installing Applications Using SmartSystems Foundation

You can use the SmartSystems console to drag-and-drop Intermec applications onto your CK3c. The console is part of SmartSystems Foundation. For more information, see **"Managing the CK3c Using SmartSystems Foundation" on page 28**.

To use SmartSystems console to install an application

1. Download your application file from the Intermec web site and unzip it on your desktop PC.
2. Double-click the application file to install it. The application file should appear in the Software Vault.
3. From the SmartSystems console in the Software Vault, drag-and-drop the application onto each CK3c in your network, or drop the application on a group of CK3cs contained in a folder.

You can also use SmartSystems Scan-to-Connect to connect the CK3c to your network and install software. For more information, see the SmartSystems Foundation console online Help.

Installing Applications Using Microsoft ActiveSync

When you only have a few computers to update with applications, you can copy files using Microsoft ActiveSync.

This procedure assumes that Microsoft ActiveSync is installed on your PC and is up and running. For more information on installing and using ActiveSync, see **"Connecting to a PC" on page 28**.

To install an application on the computer using ActiveSync

1. Connect to the CK3c via ActiveSync. For help, see **"Connecting to a PC" on page 28**.
2. Copy the .cab files from your development PC to the CK3c.
3. Warm boot or cold boot the CK3c.
4. After the boot process is finished, browse to the .cab files and tap the files to install them.

Installing Applications Using a Storage Card

For information on installing the microSD card in the CK3c, see **"Using a microSD Card" on page 22**.

To install applications using the storage card

1. Copy your application file to the microSD card.
2. Install the microSD card in the CK3c.
3. On your CK3c, browse to the Storage Card folder and run your application.

Installing Applications Using the FTP Server

The CK3c has a built-in FTP server that connects to a network through Ethernet, 802.11, or WAN (Wireless Access Network). You can use the server to transfer your application file to the computer. Because you can create FTP scripts to automate the process of copying files to the computer, this option is useful when you need to send files to a large number of computers.

The easiest way to manage the FTP server is to enable the FTP menu within iConnect.

To enable the FTP menu

- Create this DWORD registry key and set it to a value of 1:

```
HKEY_CURRENT_USER\Software\iConnect2\IConnect\Settings\ShowFTPMenu
```

The iFTP menu is available the next time you start iConnect.

To manage the state of the FTP server

- Modify these existing registry keys:

```
HKEY_CURRENT_USER\Software\iConnect2\IConnect\Settings\FtpAutoStart
HKEY_CURRENT_USER\Software\iConnect2\IConnect\Settings\FtpHeartbeat
```

  where 1 = enable and 0 = disable.

Freeing Up Virtual Memory for Applications

You can use the InstallSelect application to free up virtual memory and create more space to load and run custom applications.

Note: InstallSelect is designed for use only by administrators, developers, integrators, or Intermec service representatives. Do not run InstallSelect while using any other applications.

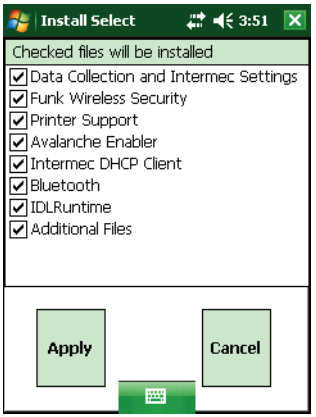
When you free up virtual memory, you reduce the amount of virtual memory used by portions of the SmartSystems Platform Bundle (SSPB) by removing value-added software features. Be sure to back up any related files that you want before you use the InstallSelect application. For more information on SSPB, see **"Upgrading the System Software" on page 60**.

Removing software features may result in loss of computer functionality or the ability to manage device settings. Contact your Intermec service representative for information about each software feature before making changes.

To free up virtual memory

1. Go to **Start** > **Programs** > **File Explorer**.
2. Tap the arrow next to **My Documents** and select **My Device**.
3. Tap the **Windows** folder and scroll down to find **InstallSelect**.
4. Tap **InstallSelect**. The Install Select application starts and displays a Caution message box.

5 Tap **OK** to close the box.



6 Clear the check box of any components you do not want installed after a clean boot. For a description of each component, see the next table.

By default, components already installed on the computer are automatically checked to be installed again after you perform a clean boot.

7 Tap **Apply** to initiate the clean boot and install only the files that are selected.

8 Tap **Yes** to continue with the clean boot. The computer performs a clean boot and restarts with all of the checked components installed.

InstallSelect Software Components

Component Name	Description
Data Collection & Intermec Settings	Data collection and Intermec Settings. Also includes on-unit SDK libraries. If you disable this .cab file, you cannot scan or collect data on the device and you cannot use Intermec Settings.
Funk Wireless Security	Intermec security supplicant that provides a wireless security solution with several features that are not supported by Microsoft.
Printer Support	Provides Intermec printer driver support.

InstallSelect Software Components (continued)

Component Name	Description
Intermec DHCP Client	Provides the Intermec DHCP client application.
Bluetooth	Provides the Intermec Bluetooth application support.
Avalanche Enabler	Enables the client to the Wavelink Device Management solution.

Depending on the options you selected for your CK3c, you may see other components available from the InstallSelect application.

Launching an Application Automatically

There are two ways to automatically launch your application when you perform a reset on the computer:

- Make sure your .cab file places a shortcut to your application in the \Windows\StartUp folder.
- Configure AutoRun.exe to launch your application.

AutoRun.exe automates operations on your CK3c. You can configure AutoRun.exe through the AutoRun data file (AutoRun.dat). For compatibility with other Intermec computers, you can place a copy of AutoRun.exe in the same folder as your AutoRun.dat file.

To create and install the AutoRun.dat file on your computer

1. Create a folder called System on your CK3c.
2. On your PC, open the Notepad application.
3. Write commands for AutoRun.dat using the supported AutoRun script commands. For help, see the next table.
4. Save the Notepad file as AutoRun.dat.
5. Copy the AutoRun.dat file to the System folder on your CK3c. During every boot, the system scans for AutoRun.dat in the System folder.

AutoRun supports the following script commands in AutoRun.dat.

AutoRun Script Commands

Command	Description
EXEC	Launches a specified program and waits for it to finish (up to 10 minutes).
CALL	Processes a specified file of commands and returns.
CHAIN	Processes a specified file of commands and does not return.
RUN	Loads and runs a specified program.
LOAD	Loads and runs a specified program.

AutoRun handles quoted file names for the first parameter, which allows you to specify path names or file names that contain white spaces. AutoRun only supports one set of quotes per command.

Upgrading the System Software

When you upgrade your computer, you are updating the operating system (OS) and the SmartSystems Platform Bundle (SSPB) files.

The SSPB files are stored on the DiskOnChip and deliver Intermec Value Add (IVA) functionality such as data collection, configuration, the Intermec wireless security suite, and SmartSystems Foundation. As new features are added to these components, you can upgrade your SSPB files without needing to upgrade the operating system. Alternately, you can choose to upgrade only the operating system if you need new functionality. If you upgrade the operating system, you will need to reinstall SSPB files.

There are two ways to upgrade your computer:

- You can upgrade your computer using a storage card. For help, see the next section, **"Upgrading the CK3c Using a microSD Card."**
- You can upgrade your computer using the SmartSystems Console. For help, see **"Upgrading the CK3c Using SmartSystems Foundation" on page 62**.

You need to download the latest upgrade files from the Intermec web site to your PC.

To download the upgrade files

1. Start your web browser and go to the Intermec web site at **www.intermec.com**.
2. Go to **Support** > **Downloads**.
3. Click the link to search the product downloads.
4. Select your computer from the **Downloads** list. The Downloads page displays all of the downloads available for your computer.
5. Download the upgrade file you need. If you want to upgrade both the OS and the SSPB, you will need to download both files.

Upgrading the CK3c Using a microSD Card

To use a microSD card to upgrade the computer, you need an SD card reader and a microSD adapter card formatted as FAT16.

To upgrade the operating system using a microSD card

1. Insert a microSD card into a microSD adapter card and then place it in the storage card reader connected to your PC.
2. Copy all required OS upgrade files to the microSD card.
3. Remove the battery by pressing the release button.
4. Remove the microSD card from the adapter card and insert it into the CK3c.
5. Place the CK3c with the battery removed, in a dock connected to external power and press the Reset button (using a stylus) located in the battery cavity on the back of the CK3c. For help, see **"Cold Booting the CK3c" on page 77**.
6. Remove the microSD card when the Installation Complete menu appears.
7. Remove the CK3c from the dock and replace the battery.

To upgrade the SSPB using a microSD card

1. Insert a microSD card into a microSD adapter card and then place it in the storage card reader connected to your PC.
2. Copy all required SSPB upgrade files to the microSD card.
3. Remove the microSD card from the adapter card and insert it into the CK3c.

4. Using the stylus, press the Reset button in the battery compartment.
5. Press and hold ⓘ as you insert the battery back into the CK3c.
6. Continue to hold ⓘ until a Warning message appears.
7. Release ⓘ, read the message, and press either button on the right side to continue.
8. Perform the screen alignment and wait for the CK3c to load files from the microSD card.

   When the progress is complete, the CK3c warm boots to reset the configuration.
9. Remove the microSD card and delete the files.
10. Set the date, time, and network communication parameters to reestablish communications with the other devices in the wireless network.

Upgrading the CK3c Using SmartSystems Foundation

You can use the SmartSystems console to upgrade the operating system on your CK3c. The console is part of SmartSystems Foundation and is available from the Intermec web site through the Intermec Developer Library (IDL). Before you can upgrade your CK3c, you need:

- SmartSystems Foundation. To download SmartSystems Foundation, go to **www.intermec.com/idl** and open the Device Management page.
- the device upgrade .exe file. This file is available from the Intermec web site at **www.intermec.com**. Go to **Support** > **Downloads**. Make sure the file you select is for your language.

To upgrade the computer using SmartSystems Foundation

1. Install SmartSystems Foundation on your PC and open the SmartSystems console.
2. Make sure the SmartSystems console and CK3c are on the same subnet.
3. Make sure your CK3c is either in a communications dock or charging dock or the device power management is disabled.

4. Download the device upgrade .exe file to your PC.
5. Double-click the .exe file on your PC. An InstallShield application starts and walks you through the process of extracting the upgrade files to the default location.

Note: Do not change the default location where InstallShield extracts the files. The SmartSystems console requires the files to be in this location.

6. From the SmartSystems console, locate the device upgrade to install.
7. Drag the application to each CK3c you want to upgrade or to a group of CK3cs in a folder.The SmartSystems console installs the upgrade on your computers.

After the download is complete, your CK3c replaces the operating system and automatically performs a cold boot.

Note: The SmartSystems console indicates that your CK3c is offline, by displaying a red stop sign symbol, until the CK3c reboots and reconnects to the system.

4

Troubleshooting and Maintaining the CK3c

This chapter contains possible solutions to problems you may encounter while using the CK3c. This chapter also contains information on booting the computer and these topics:

- **Calling Product Support**
- **Troubleshooting Your CK3c**
- **Resetting the CK3c**
- **Cleaning the Scanner Window and Screen**

Calling Product Support

If you cannot find the answer to your problem in **"Troubleshooting Your CK3c" on page 67**, you can visit the Intermec technical knowledge base (Knowledge Central) at **intermec.custhelp.com** to review technical information or to request technical support. If you still need help after visiting Knowledge Central, you may need to call Product Support.

To talk to an Intermec Product Support representative, call

1-800-755-5505.

Before you call Intermec Product Support, make sure you have the following information ready:

- Serial number
- Configuration number
- Operating system version
- SmartSystems Platform Bundle (SSPB) version
- If you are using security, know the type (Funk or Microsoft) and the full set of parameters
- Power management settings
- If you are using Intermec Terminal Emulation (ITE), know the version and protocol
- If you are not using ITE, know the language your custom application was written in and the tools you used to create it

You can find most of the information listed above in Intermec Settings. Consult your application developer for information on your custom application.

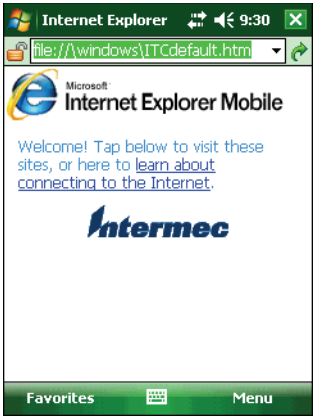
To find your configuration number

- Look at the CN field of the configuration label on the back of your CK3c.

To find your operating system version

1 Tap **Start** > **Internet Explorer**.

2 Tap the Intermec logo. The Intermec page appears and displays the version of the operating system and the SmartSystems Platform Bundle (SSPB) loaded on your CK3c.



Troubleshooting Your CK3c

Use this section to troubleshoot some common problems you may experience with your CK3c.

Note: If you send the CK3c in for service, it is your responsibility to save the computer data and configuration. Intermec is responsible only for ensuring that the hardware matches the original configuration when repairing or replacing the computer.

Problems While Configuring the CK3c

Problem	Possible Solution
You scan a configuration command, such as Beeper Volume, and you hear three low beeps and nothing happens.	If you are working in Intermec Settings, you cannot scan configuration commands. Exit the application to scan configuration commands.

Problems While Configuring the CK3c (continued)

Problem	Possible Solution
You scan or enter an option for the Scanner Model configuration command, and you hear three low beeps and nothing happens.	You may have scanned or entered a Scanner Model command that does not apply to the type of scanner that you have installed. Try scanning or entering the Scanner Model command again and select an option for the type of device you are using.
You cannot type a character on the keypad or you can only type uppercase or lowercase letters.	You may have locked a modifier key on the keypad. Press the necessary key sequence to unlock the key. For help, see **"Using the Keypad" on page 8**.
You press ⏻ and nothing happens.	• Make sure the backlight is on. • Make sure you have a charged battery that is installed correctly. For help, see **"Charging the Battery" on page 5**. • The battery may be discharged. Replace the battery with a spare charged battery, or charge the battery. • Reset the CK3c. For help, see **"Resetting the CK3c" on page 77**.
You insert a microSD card and cannot find the SDMMC Disk folder on the CK3c. Or, you insert a bootable SD card and the CK3c does not boot from the card.	• The microSD card may not be installed correctly. Insert the microSD card as described in Steps 2 through 4 of **"Using a microSD Card" on page 22**. • The microSD card may be damaged. Try another microSD card.
The Battery status LED is on.	• If the battery status LED is a steady green, the battery is more than 95% charged and computer is on a charger. • If the battery status LED is blinking red, then the battery is low. Replace or charge the battery. • If the battery status LED is a steady red, the main battery is on charge.

Problems While Configuring the CK3c (continued)

Problem	Possible Solution
The computer appears to be locked up and you cannot enter data.	• Press the power key to turn off the CK3c, and then press the power key again to turn it on. • Press and hold the power key 5 seconds to warm boot the CK3c. • Try reloading the firmware. For help, see **"Upgrading the System Software" on page 60**. • If the CK3c does not boot or reset, contact your Intermec representative for help.
You tap the screen and nothing happens.	Align your screen. For help, see **"Aligning the Touch Screen" on page 13**.

Problems With Wireless Connectivity

Problem	Possible Solution
When you turn on the CK3c after it was suspended for 10 to 15 minutes or longer, the CK3c can no longer send or receive messages over the network.	The host may have deactivated or lost the current terminal emulation session. In a TCP/IP direct connect network, turn off the "Keep Alive" message from host to maintain the TCP session while the computer is suspended.
The CK3c is connected to the network, and you move to a new site to collect data. Now, your CK3c is not connected to the network.	Move closer to an access point or to a different location to reestablish communications until you reconnect with the network. Any data collected while out of range is transmitted over the network.
The CK3c appears to be connected to the network, but you cannot establish a terminal emulation session with the host computer.	There may be a problem with the host computer, with the connection between the Intermec Application Server and the host computer, or with the connection between the access point and the host computer. Check with network administrator to make sure the host is running and allowing users to login to the system.

Problems With Wireless Connectivity (continued)

Problem	Possible Solution
The CK3c appears to be connected to the network, but the host computer is not receiving any information from the CK3c.	There may be a problem with the connection between the access point and the host computer. Check with network administrator or use your access point user's manual.

Problems While Configuring 802.1x Security

Problem	Possible Solution
The CK3c indicates that it is authenticated, but it does not communicate with the host.	Make sure the CK3c IP address, host IP address, subnet mask, default router are configured for the network.
The CK3c does not appear to be authenticating and a network connection icon does not appear on the toolbar.	• The CK3c may not be communicating with the access point. Make sure the CK3c network name matches the access point network name (SSID). • The 802.1x security network may not be active. Make sure the server software is properly loaded and configured on the server PC. See server software documentation for help.
A network connection icon appears in the toolbar, but then disappears.	• The CK3c may not be communicating with the intended access point. Make sure the CK3c network name matches the access point network name. Default network name is "INTERMEC." • The access point may not be communicating with the server. Ensure the access point is turned on, properly configured, and has 802.1x security enabled.
You are setting up multiple access points in a network, with different SSIDs, and the connection fails.	When you change the SSID, the WEP key values are not saved. Configure the WEP key values and save your changes.

Problems While Configuring 802.1x Security (continued)

Problem	Possible Solution
The CK3c indicates it is not authenticated.	Make sure that: • the User Name and Password parameters on the CK3c match the user name and password on the authentication server. You may need to configure the password on both the CK3c and the authentication server. • on your authentication server, the user and group are allowed and the group policy is allowed to log into the server. For help, see the documentation that shipped with your authentication server software. • the IP address and secret key for the access point match the IP address and secret key on the authentication server. You may need to configure the IP address and secret key on both your access point and authentication server. • the authentication server software is running on the server PC.
You clean boot the CK3c and this message appears, "The server certificate has expired or your system date is incorrect."	When you clean boot the CK3c, the date and time are not saved. Configure the date and time and save your changes.

Problems While Scanning Bar Codes

Problem	Possible Solution
You press the **Scan** button, but you cannot see a red beam of light.	• You may be too far away from the bar code label. Try moving closer to the bar code label and scan it again. • You may be scanning the bar code label "straight on." Change the scanning angle and try again. • ·Move within two feet of a wall to test the effective scan of the scanner. For help scanning bar codes, see **"Scanning Bar Codes" on page 16**.

Problems While Scanning Bar Codes (continued)

Problem	Possible Solution
The input device attached to the CK3c does not work well or read bar code labels very quickly.	Set the Scanner Model command to the specific attached input device. Check enabled bar code symbologies and enable only the symbologies being used.
When you release **Scan** button, the Good Read LED does not turn off.	If the CK3c is configured to use continuous/edge triggering, the Good Read LED stays on. If the CK3c is configured to use level triggering, there may be a problem. Press the **Scan** button or pull the trigger again without scanning a bar code label. If the LED is still on, contact your local Intermec representative.
The scanner does not read the bar code label.	• Aim the scanning beam so that it crosses the entire bar code label in one pass. Try changing the scan angle. • Check the quality of the bar code label, Scan a bar code label that you know scans well. Compare the two bar code labels to see if the bar code quality is too low. You may need to replace the label that you cannot scan. • Make sure the bar code symbology is enabled. For help, see **"Using Intermec Settings Directly on the CK3c" on page 31**. • Make sure the application is accepting input by scanning a bar code. You may need to type this information instead.
The scanner does not read the bar code labels quickly, or the scanning beam seems to be faint or obscured.	The scanner window may be dirty. Clean the window with a solution of ammonia and water. Wipe dry. Do not allow abrasive material to touch the window.
The scanned bar code data that appears in your application does not match the data encoded in the bar code label.	The CK3c may have decoded the bar code label in a different bar code symbology. Try scanning the bar code label again. Make sure you scan the entire label.

Checking 802.11 Network Status

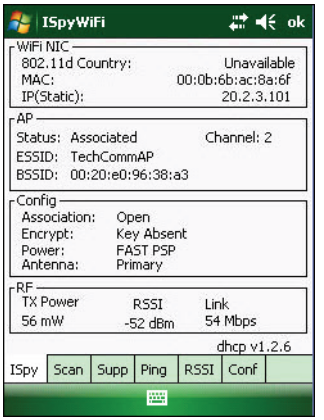
If you have trouble connecting to your 802.11 wireless network:

- Make sure you have correctly set network parameters on the CK3.
- Check your wireless security settings.

Follow the next procedure to use iConnect to verify available access points and networks, check signal strength, and view other diagnostics. If you need to contact Intermec Product Support, this information can be helpful in troubleshooting wireless network connection issues.

To use iConnect to verify network status

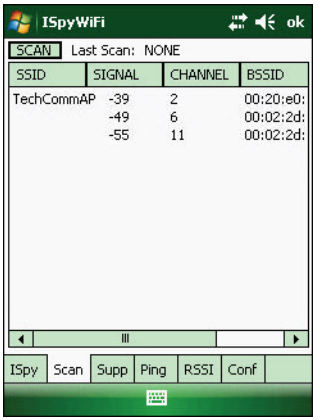
1. Tap the iConnect icon ( ) in the lower right corner of the CK3 screen.
2. Choose **Status** > **Wireless**.
3. Tap **Advanced**. The diagnostics screen appears.



The ISpy tab shows:

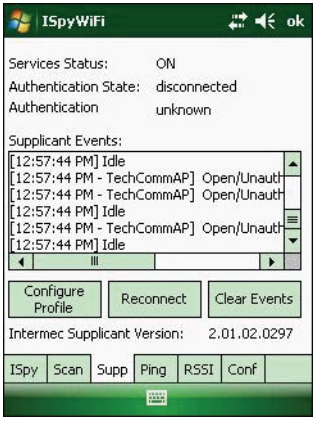
- the MAC address and IP address of the 802.11 radio.
- network association status, including the SSID and MAC address of the access point
- security configuration.
- radio transmit power and signal strength information.

4 Tap the **Scan** tab to view a list of available 802.11 networks. The list includes the signal strength, channel, and MAC address for each network.



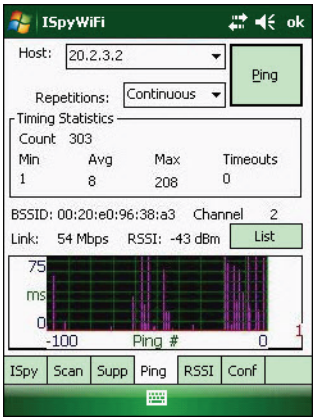
- Tap **Scan** to refresh the screen.

5 Tap the **Supp** tab to view radio supplicant information, including a list of supplicant events and authentication status.



- To verify the settings for the currently active security profile, tap **Configure Profile**. The Profile Wizard for the active profile appears.
- To try reconnecting to the network, tap **Reconnect**.
- To delete the events in the list, tap **Clear Events**.

6 Tap the **Ping** tab to run a ping test to the host.



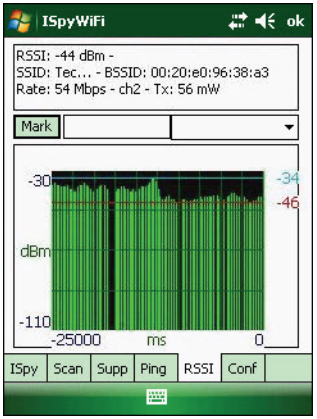
To run a ping test:

a In the **Host** field, enter the IP address of the host.

b From the **Repetitions** list, choose the number of times the CK3 will ping the host.

c Tap **Ping**. The graph shows the amount of time it takes for the host to return the ping. Tap **List** to see this information in a list format.

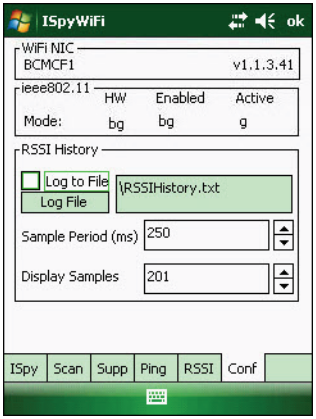
7 Tap the **RSSI** tab to view the received signal strength of the host signal.



The information box includes the current signal strength, host SSID name, MAC address, data rate, and transmit power.

- Tap **Mark** to place an arrow marker above the graph.

8 Tap the **Conf** tab to set up a log file that lists RSSI history.



This screen includes the 802.11 radio driver version and available radio modes.

To create a log file:

a Check the **Log to File** check box.

b (Optional) Change the sample period and number of samples displayed.

c Tap **Log File**. The Save As screen appears.

d (Optional) Change the name of the saved log file, the folder to which the file will be saved, the content type (log or text), and the location.

e Tap **Save**.

Resetting the CK3c

You seldom need to reset the CK3c. However, you do need to reset the CK3c when an application is locked up and does not respond, when you upgrade the firmware, or when you reflash the CK3c. The CK3c uses the configuration currently saved in flash memory during the reset process.

There are three ways to reset the CK3c:

- Warm boot
- Cold boot
- Clean boot

Warm Booting the CK3c

If your CK3c has a charged battery installed but does not resume after you press the Power key, or if the computer or an application is locked up, you may need to warm boot the CK3c.

To warm boot your CK3c

- Press and hold ⏻ for 5 seconds.

  Or,

- From the SmartSystems console, right-click the CK3c and select **Intermec Power Tools** > **Warm Boot Device**.

The CK3c shuts down, restarts, and goes through the initialization process.

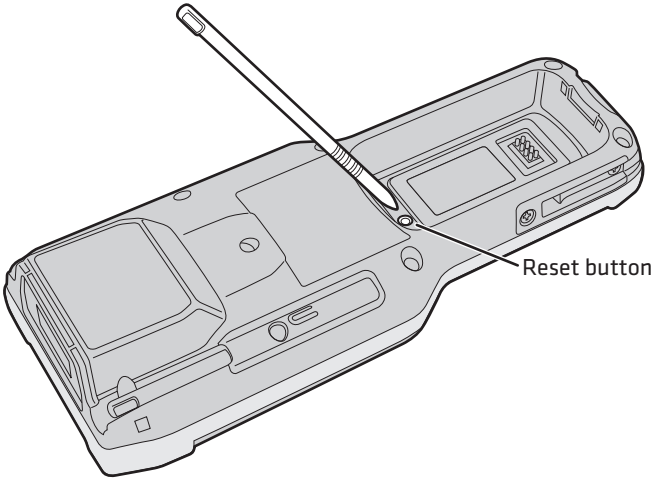
Cold Booting the CK3c

If the CK3c or application is locked up and does not respond to a warm boot, follow this procedure to perform a cold boot.

Performing a cold boot may result in data loss. When you cold boot the CK3c, cached disk data may not be saved, so transactional data may be lost.

To cold boot your CK3c

1. Press and hold ⏻ for about 2 seconds to suspend the CK3c.
2. Remove the battery.
3. Use the stylus to press the reset button in the battery compartment of the CK3c.



Caution

Do not use force or a sharp object when pressing the reset button. You may damage the reset button.

4. Replace the battery.

Clean Booting the CK3c

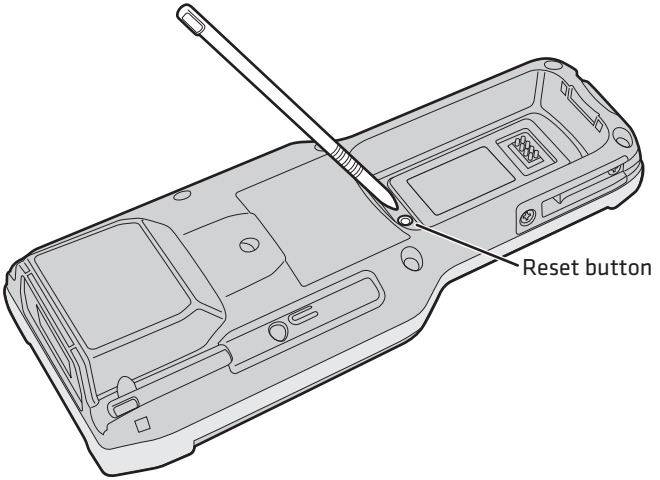
If the CK3c does not warm boot or cold boot, you may need to perform a clean boot. When you clean boot the CK3c, the CK3c only loads files and applications that are absolutely required by the operating system. Perform a clean boot to get the CK3c up and running so that you can run diagnostic tests to troubleshoot the normal boot process.

Caution

The clean boot process erases the CK3c memory, including all applications and data files in the object store. To preserve applications through a clean boot, store them in the Flash File Store. For more information, see "Installing Applications on the CK3c" on page 55.

To clean boot the CK3c

1. Press and hold ⏻ for about 2 seconds to suspend the CK3c.
2. Remove the battery.
3. Use the stylus to press the reset button in the battery compartment of the CK3c.



4. Replace the battery.
5. Press and hold both ⏻ and the **PTT** button.
6. Continue to hold ⏻ and **PTT** until the "Clean boot the system?" prompt appears on screen.
7. Release the two buttons, read the message, and press the appropriate button to either proceed with the clean boot or cancel the clean boot.

Note: You can also clean boot your CK3c from the SmartSystems console: right-click the CK3c and select **Intermec Power Tools** > **Clean Boot Device**.

Cleaning the Scanner Window and Screen

To keep the CK3c in good working order, you may need to perform these minor maintenance tasks:

- Clean the scanner window.
- Clean the CK3c screen.

Clean the scanner window and CK3c screen as often as needed for the environment in which you are using the computer. To clean the CK3c, use a solution of ammonia and water.

There are no user-serviceable parts inside the CK3c. Opening the unit will void the warranty and may cause damage to the internal components.

To clean the scanner window and computer screen

1. Press ⏻ to turn off the CK3c.
2. Dip a clean towel or rag in the ammonia solution and wring out the excess. Wipe off the scanner window and screen. Do not allow any abrasive material to touch these surfaces.
3. Wipe dry.

A
Specifications

Physical and Environmental Specifications

Physical Dimensions

Length:	21.69 cm (8.54 in)
Width (at widest part):	8.36 cm (3.29 in)
Height (at tallest part):	4.67 cm (1.84 in)

CK3c Weight

Scan Engine Option	With AB17	With AB18
With EV12	14.41 oz	16.32 oz
With EA20X	14.74 oz	16.66 oz
With EX25	15.73 oz	17.64 oz

Power and Electrical Specifications

Operating:	Rechargeable lithium-ion battery
Backup:	Supercap supplies 10 minutes of bridge time while replacing the main battery
Electrical rating:	⎓ 4,4 V, 2A; ⎓ 4,7 V, 1,5A

Temperature and Humidity Specifications

Operating temperature:	-10°C to 50°C (14°F to 122°F)
Storage temperature:	-20°C to 70°C (-4°F to 158°F)
Charging temperature:	0°C to 45°C (32°F to 113°F)
Relative humidity (operating):	0 to 95% non-condensing
Environmental rating:	IP54

Screen Specifications

- 240 RGB x 320 pixels
- 8.9 cm (3.52 in) diagonal square active area, ¼ VGA
- LED backlight with 5 levels of brightness
- LCD capable of both portrait and landscape operation

Bar Code Symbologies

- Australian Post*
- Aztec*
- BPO (British Post 4-state)*
- China Post
- Canada Post
- Codabar
- Codablock A
- Codablock F
- Code 11
- Code 39
- Code 93
- Code 128/GS1-128
- DataMatrix*
- Dutch Post*
- EAN/UPC
- GS1 Composite*
- GS1 DataBar Expanded
- GS1 DataBar Limited
- GS1 DataBar Omnidirectional
- Info Mail
- Interleaved 2 of 5
- Japan Post*
- Matrix 2 of 5
- Maxicode*
- Micro PDF417*
- MSI
- PDF417*
- Planet*
- Plessey
- Postnet*
- QR Code*
- Standard 2 of 5
- Swedish Post
- Telepen
- TLC 39

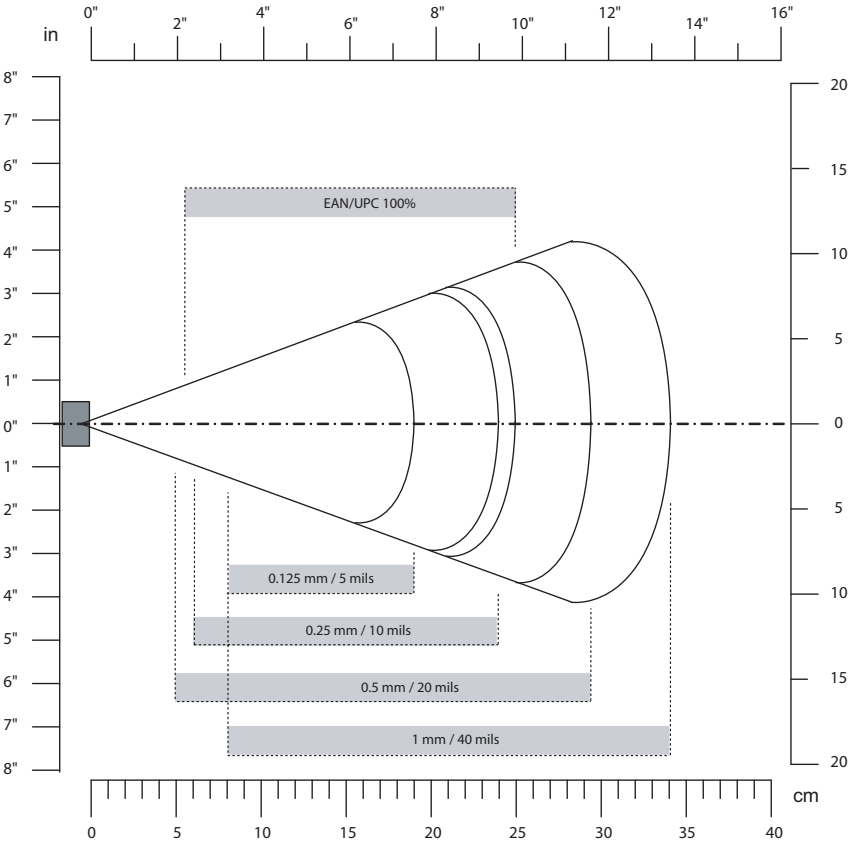
* These symbologies are only available if your CK3c has an extended range area imager or a near-far range area imager.

EV12 Linear Imager Reading Distances

*Minimum Reading Distances With 0.12 cm (0.05 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.15 mm (6 mils)	9.6 cm (3.8 in)	17.9 cm (7.1 in)
	0.25 mm (10 mils)	7.1 cm (2.9 in)	20.9 cm (8.3 in)
	0.5 mm (20 mils)	6.1 cm (2.5 in)	26.9 cm (10.6 in)
	1 mm (40 mils)	8.1 cm (3.2 in)	33.9 cm (13.4 in)
EAN/UPC	0.33 mm (13 mils)	6.1 cm (2.5 in)	22.9 cm (9.1 in)

*Minimum reading distances are measured in the dark (0 lux).



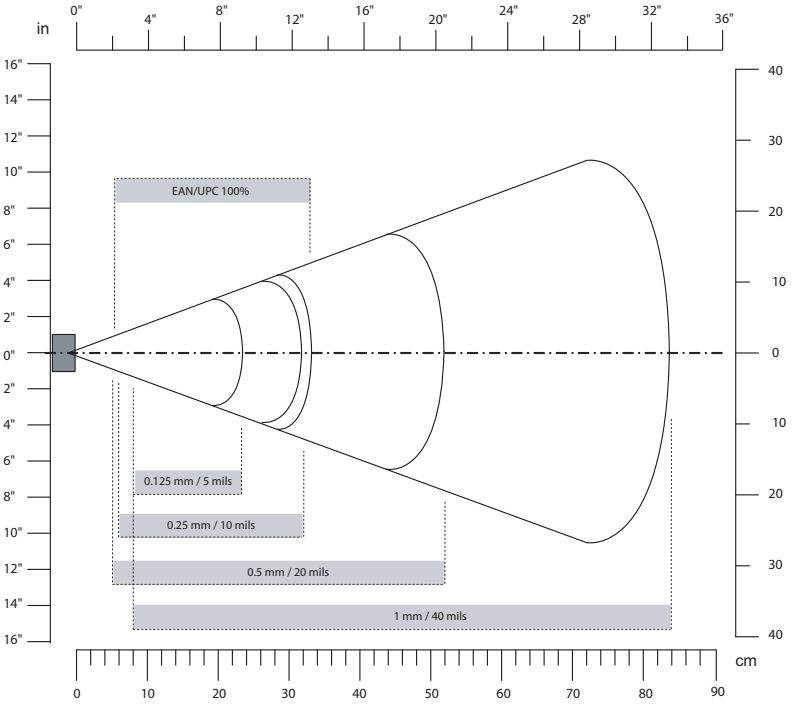
EV12 Linear Imager Minimum Reading Distances: *This graphic does not include the 0.12 cm (0.05 in) setback for the CK3c.*

*Typical Reading Distances With 0.12 cm (0.05 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.15 mm (6 mils)	9.1 cm (3.6 in)	19.9 cm (7.9 in)
	0.25 mm (10 mils)	6.1 cm (2.5 in)	24.9 cm (9.8 in)
	0.5 mm (20 mils)	5.1 cm (2.1 in)	34.9 cm (13.8 in)
	1 mm (40 mils)	7.1 cm (2.9 in)**	50.9 cm (20.1 in)
EAN/UPC	0.33 mm (13 mils)	5.1 cm (2.1 in)	27.9 cm (11.0 in)

* Typical reading distances are measured in an office environment (200 lux).

** Minimum distance depends on bar code width and scan angle.



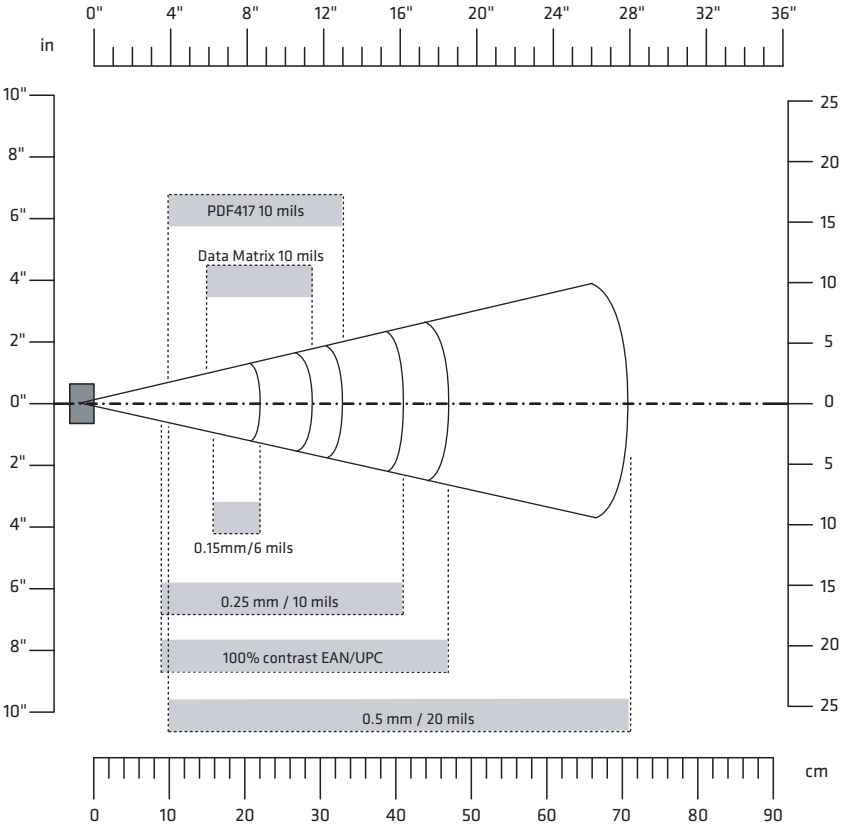
EV12 Linear Imager Typical Reading Distances: *This graphic does not include the 0.12 cm (0.05 in) setback for the CK3c.*

EA20X Extended Range Area Imager Minimum Reading Distances

*Minimum Reading Distances With 0.2 cm (0.08 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.15 mm (6 mils)	16.2 cm (6.4 in)	21.8 cm (8.6 in)
	0.20 mm (8mils)	12.2 cm (4.8 in)	30.8 cm (12.1 in)
	0.25 mm (10 mils)	9.2 cm (3.6 in)	40.8 cm (16.0 in)
	0.50 mm (20 mils)	10.2 cm (4.0 in)	70.8 cm (27.9 in)
	1.00 mm (40 mils)	15.2 cm (6.1 in)	99.8 cm (39.3 in)
EAN/UPC 100%	0.33 mm (13 mils)	9.2 cm (3.6 in)	47.8 cm (18.8 in)
Data Matrix	0.18 mm (7 mils)	17.2 cm (6.8 in)	19.8 cm (7.8 in)
	0.25 mm (10 mils)	15.2 cm (6.1 in)	28.8 cm (11.3 in)
	0.38 mm (15 mils)	10.2 cm (4.0 in)	44.8 cm (17.6 in)
PDF417	0.17 mm (6.6 mils)	15.2 cm (6.1 in)	21.8 cm (8.6 in)
	0.25 mm (10 mils)	10.2 cm (3.9 in)	32.8 cm (12.9 in)
	0.38 mm (15 mils)	11.2 cm (4.4 in)	49.8 cm (19.6 in)

*Minimum reading distances are measured in the dark (0 lux).



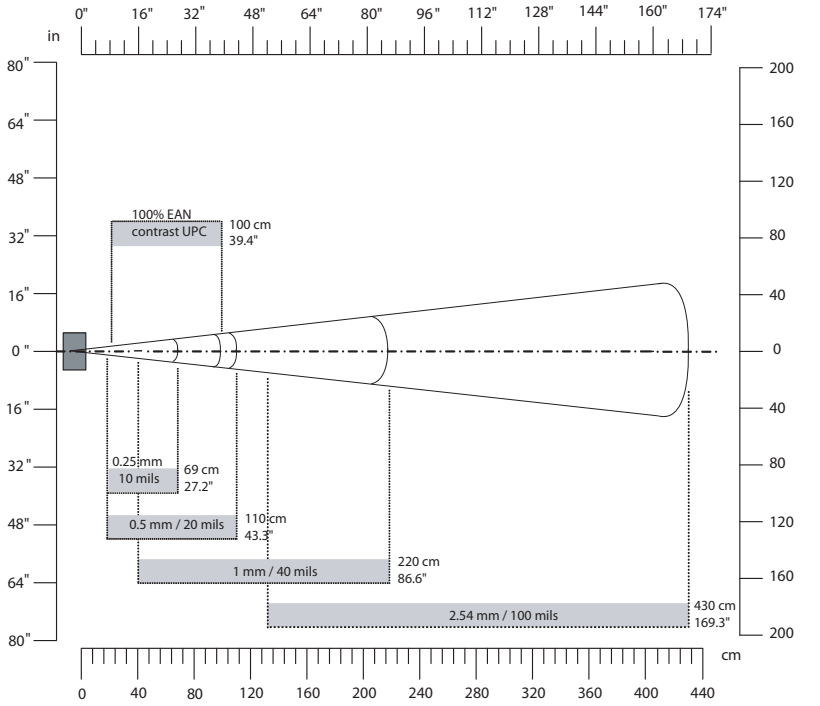
EA20X Extended Range Area Imager Minimum Reading Distances: *This graphic does not include the 0.2 cm (0.08 in) setback for the CK3c.*

EX25B Near-Far Range Area Imager Reading Distances

*1D Symbologies Minimum Reading Distances With 0.24 cm (0.09 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.1 mm (3.8 mils)	18.24 cm (7.18 in)	31.76 cm (12.51 in)
	0.25 mm (10 mils)	18.24 cm (7.18 in)	68.76 cm (27.07 in)
	0.5 mm (20 mils)	19.24 cm (7.57 in)	109.76 cm (43.22 in)
	1 mm (40 mils)	40.24 cm (15.84 in)	219.76 cm (86.52 in)
	1.3 mm (51 mils)	100.24 cm (39.46 in)	309.76 cm (121.96 in)
	2.5 mm (100 mils)	130.24 cm (51.27 in)	429.76 cm (169.20 in)
EAN 100%	0.33 mm	22.24 cm (7.96 in)	99.76 cm (39.28 in)

* Minimum reading distances are measured in the dark (0 lux).



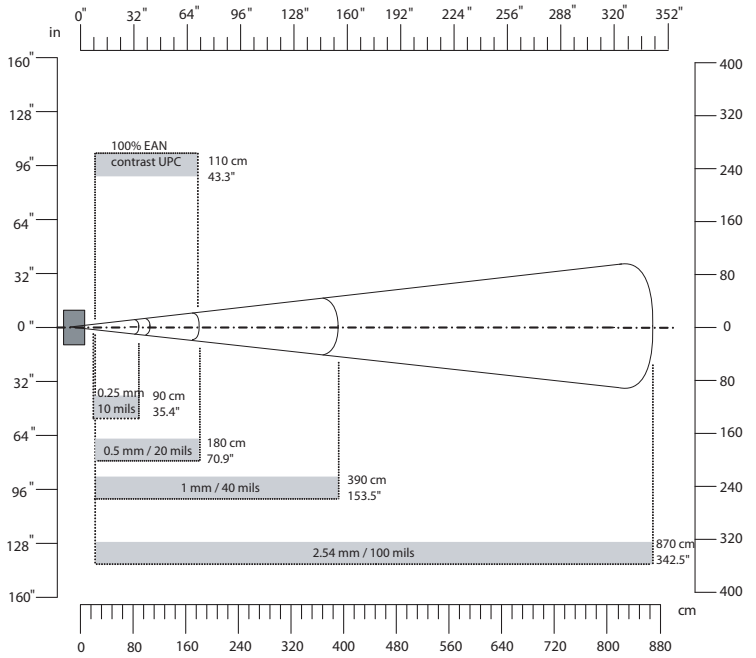
EX25B Near-Far Range Imager 1D Minimum Reading Distances: *This graphic does not include the 0.24 cm (0.09 in) setback for the CK3c.*

*1D Symbologies Typical Reading Distances With 0.24 cm (0.09 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.25 mm (10 mils)	16.24 cm (6.21 in)	89.76 cm (35.34 in)
	0.5 mm (20 mils)	18.24 cm (7.00 in)	179.76 cm (70.77 in)
	1 mm (40 mils)	18.24 cm (7.00 in)**	389.76 cm (153.45 in)
	1.4 mm (55 mils)	20.24 cm (7.78 in)**	479.76 cm (188.89 in)
	2.5 mm (100 mils)	20.24 cm (7.78 in)**	869.76 cm (342.43 in)
EAN 100%	0.33 mm	20.24 cm (7.78 in)	109.76 cm (43.22 in)

* Typical reading distances are measured in an office environment (200 lux).

** as long as the bar code label fits in the reading area



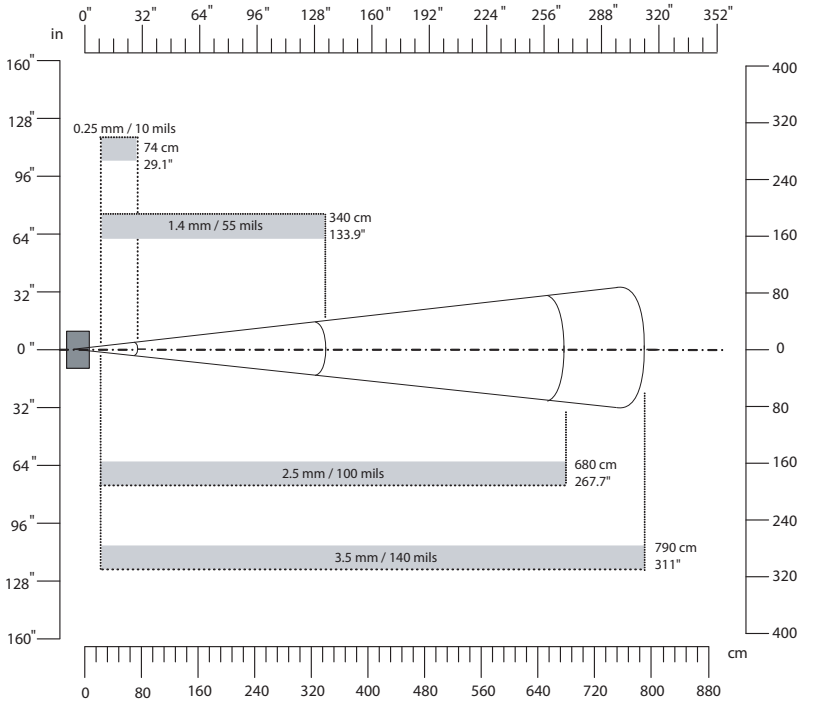
EX25B Near-Far Range Imager 1D Typical Reading Distances: *This graphic does not include the 0.24 cm (0.09 in) setback for the CK3c.*

*2D Symbologies Typical Reading Distances With 0.24 cm (0.09 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
DataMatrix	0.25 mm (10 mils)	20.24 cm (7.96 in)**	73.76 cm (29.04 in)
	1.4 mm (55 mils)	20.24 cm (7.96 in)**	339.76 cm (133.77 in)
	2.5 mm (100 mils)	20.24 cm (7.96 in)**	679.76 cm (267.63 in)
	3.5 mm (140 mils)	20.24 cm (7.96 in)**	789.76 cm (310.93 in)
	5 mm (200 mils)	20.24 cm (7.96 in)**	1199.76 cm (472.02 in)

* Typical reading distances are measured in an office environment (200 lux).

** as long as the bar code label fits in the reading area



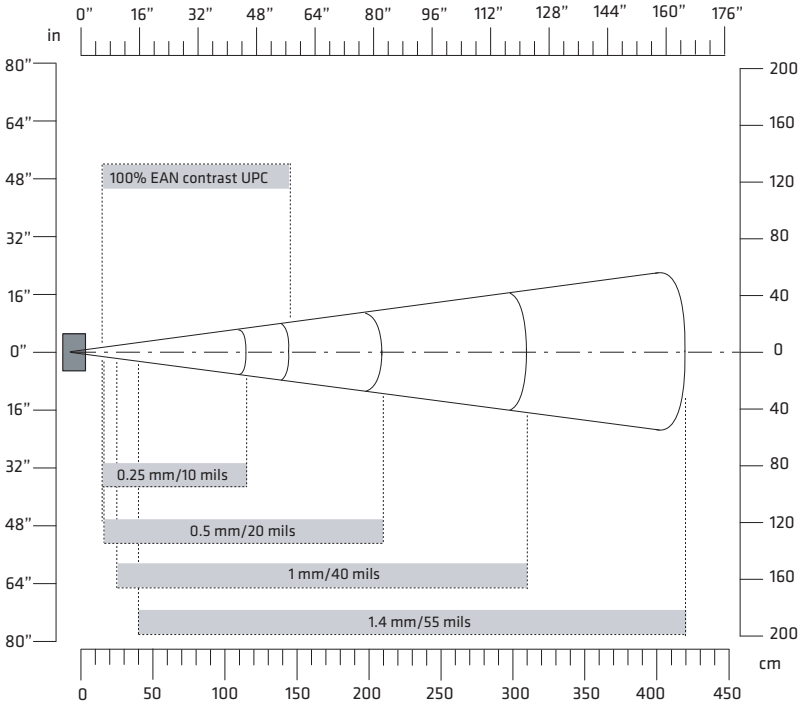
EX25B Near-Far Range Imager 2D Typical Reading Distances: *This graphic does not include the 0.24 cm (0.09 in) setback for the CK3c.*

EX25C Near-Far Range Area Imager Reading Distance

*1D Symbologies Minimum Reading Distances With 0.24 cm (0.09 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.08 mm (3 mils)	15 cm (5.91 in)	35 cm (13.78 in)
	0.1 mm (2.8 mils)	15 cm (5.91 in)	45 cm (17.72 in)
	0.25 mm (10 mils)	15 cm (5.91 in)	115 cm (45.28 in)
	0.5 (20 mils)	16 cm (6.30 in)	210 cm (82.68 in)
	1 mm (40 mils)	25 cm (9.84 in)	310 cm (122.05 in)
	1.3 mm (51 mils)	40 cm (15.75 in)	310 cm (165.35 in)
EAN 100%	0.33 mm	15 cm (5.91 in)	145 cm (57.09 in)

* Minimum reading distances are measured in the dark (0 lux).



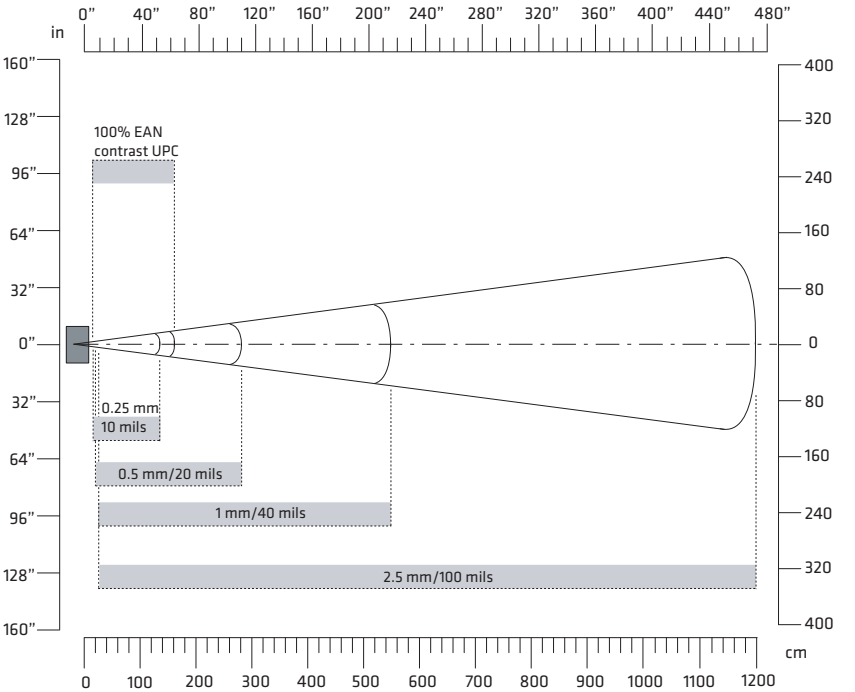
EX25C Near-Far Range Imager 1D Minimum Reading Distances: *This graphic does not include the 0.24 cm (0.09 in) setback for the CK3c.*

*1D Symbologies Typical Reading Distances With 0.24 cm (0.09 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.25 mm (10 mils)	15 cm (5.91 in)	135 cm (53.15 in)
	0.5 mm (20 mils)	16 cm (6.30 in)	280 cm (110.24 in)
	1 mm (40 mils)	25 cm (9.84 in)	550 cm (216.54 in)
	1.4 mm (55 mils)	40 cm (15.75 in)	720 cm (283.46 in)
	2.5 mm (100 mils)	**	1200 cm (472.44 in)
Code 128 retro-reflective	2.5 mm (100 mils)	**	1300 cm (511.81 in)
EAN 100%	0.33 mm	15 cm (5.91 in)	160 cm (62.99 in)

* Typical reading distances are measured in an office environment (200 lux).

** Minimum distance depends on bar code width and scan angle.



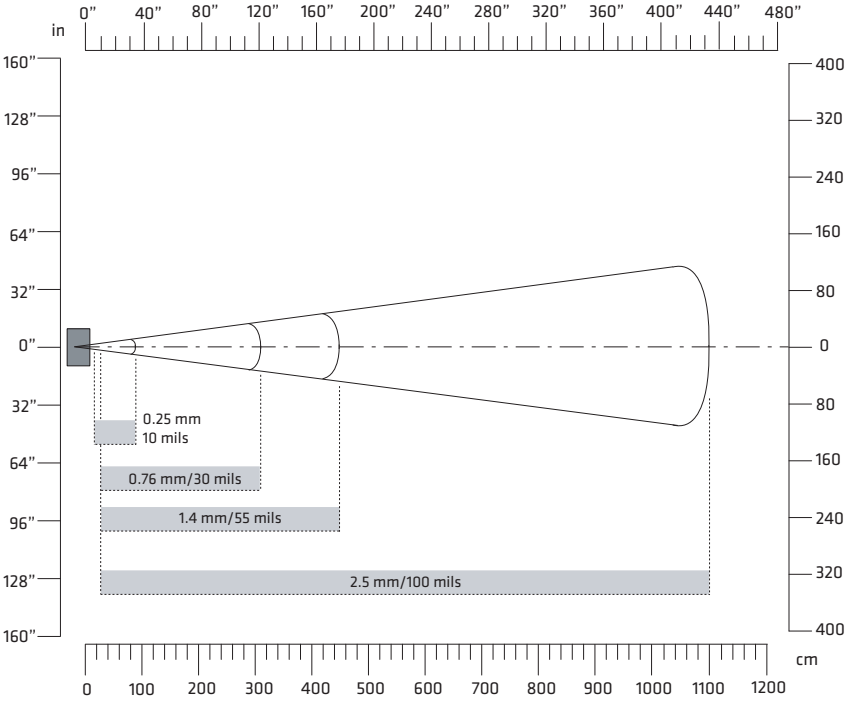
EX25C Near-Far Range Imager 1D Typical Reading Distances: *This graphic does not include the 0.24 cm (0.09 in) setback for the CK3c.*

*2D Symbologies Typical Reading Distances With 0.24 cm (0.09 in) Setback**

Symbology	Density	Minimum Distance	Maximum Distance
DataMatrix	0.25 mm (10 mils)	15 cm (5.91 in)	90 cm (35.43 in)
	0.76 mm (30 mils)	25 cm (9.84 in)	310 cm (122.05 in)
	1.4 mm (55 mils)	**	450 cm (177.17 in)
	2.5 mm (100 mils)	**	1100 cm (433.07 in)

* Typical reading distances are measured in an office environment (200 lux).

** Minimum distance depends on bar code width and scan angle.



EX25C Near-Far Range Imager 2D Typical Reading Distances: *This graphic does not include the 0.24 cm (0.09 in) setback for the CK3c.*

Accessories

You can use these accessories (sold and ordered separately) with the CK3c. To order accessories, contact your local Intermec sales representative.

Battery (AB17, AB18)
The AB17 standard battery and AB18 extended battery provide main power to the CK3c.

Quad Charger (AC20)
The AC20 quad charger charges up to four CK3c batteries at one time.

Single Dock (AD20)
The AD20 single dock powers your CK3c Mobile Computer and charges a spare battery (AB17 or AB18) separately. The single dock also provides a two-wire serial debug port and client and host USB connectivity.

Ethernet Multidock (AD21)
The AD21 Ethernet multidock provides Ethernet connectivity and power to up to four CK3c computers at one time.

Charge-Only Multidock (AD22)
The AD22 charge-only multidock charges up to four CK3c computers at one time.

Vehicle Dock (AV10)
Use the AV10 vehicle dock to hold and charge your CK3c while you are using it on a vehicle.

Vehicle Battery Adapter (AE33)
Use the AE33 vehicle battery adapter to provide power to your CK3c from your vehicle. To use the vehicle battery adapter, you also need the AA23 power adapter.

RS-232 Adapter (AA21)
Use the RS-232 adapter to connect RS-232 devices to your CK3c.

Power Adapter (AA23)
Use the power adapter to provide power to your CK3c from an external power supply.

Scan Handle
The scan handle provides you with an alternate way to hold the CK3c and scan bar code labels using a convenient scanning trigger.

Vehicle Holder
Use the vehicle holder to store your CK3c when you are not using it.

Holster
The holster provides you with a convenient way to carry your CK3c when you are not using it.

IP30 and SR61 Battery Pack Adapter
The IP30 and SR61 battery pack adapter lets you charge an AB3 battery using the CK3c quad charger (AC20) or CK3c single dock (AD20).

CK3c With IP30 Vehicle Holder
If you attached an IP30 to your CK3c, you can use the vehicle holder to store your CK3c when you are not using it.

B

Default Settings

Default Configuration

The following tables list the default values of the configuration commands supported on the CK3c. If you restore the CK3c to factory default settings, the CK3c uses these values.

The commands are grouped by function and reflect the organization of Intermec Settings. For detailed information on most of the commands, see the ***Intermec Settings Command Reference Manual***, available from the Intermec web site at **www.intermec.com**.

Data Collection

Data Collection Settings

Data Collection Setting	Default Value
Enable Scanner Port	Enable
Enable Scanner Auto-Detect	Enable
Scanner Port Baud Rate	38400

Symbology Settings

Symbology	Default Value
Australian Post	Disable
Aztec	Disable
BPO	Disable
Canada Post	Disable
China Post	Disable
Codabar	Disable
Codablock A	Disable
Codablock F	Disable
Code 11	Disable
Code 39	Enable
Code 93	Disable
Code 128/GS1-128	Enable
DataMatrix	Enable
Dutch Post	Disable

Symbology Settings (continued)

Symbology	Default Value
EAN/UPC	Enable UPC A, UPC E, EAN 8, EAN 13
GS1 Composite	Disable
GS1 DataBar Expanded	Disable
GS1 DataBar Limited	Disable
GS1 DataBar Omnidirectional	Disable
Info Mail	Disable
Interleaved 2 of 5	Disable
Japan Post	Disable
Matrix 2 of 5	Disable
Maxicode	Disable
Micro PDF417	Disable
MSI	Disable
PDF417	Enable
Planet	Disable
Plessey	Disable
Postnet	Disable
QR Code	Disable
Standard 2 of 5	Disable
Swedish Post	Disable
Telepen	Disable
TLC 39	Disable

Symbology Option Settings

Symbology Option	Default Value
Preamble	None (disabled)
Postamble	None (disabled)
Global Symbology ID	Disable

Scanner Settings

Scanner Setting	Default Value
Hardware trigger	Enable
Turn Off After Good Read	Enable/One-shot
Trigger mode (area imagers only)	Level

Imager Settings

Imager Setting	Default Value
Predefined Modes	1D and 2D Standard
Sticky Aimer LED duration	0 (disabled)
Signature Image Capture	Disable

Decode Security Settings

Decode Security Setting	Default Value
Consecutive Data Validation	0
Identical Consecutive Timeout	300 ms
Different Consecutive Timeout	0
Center Decoding	Disable
Center Decoding Tolerance	Disable

Virtual Wedge Settings

Virtual Wedge Setting	Default Value
Virtual Wedge	Enable
Grid	Null

RFID

RFID Settings

RFID Setting	Default Value
Enable RFID Service	Enable

Application Connection Settings

Application Connection Setting	Default Value
Allow External BRI Connections	Enable
BRI TCP Port	2189
Enable Logging	Disable

Reader 1 Settings

Reader 1 Setting	Default Value
Enable Reader	Disable
Reader Model	IP30

RFID Module Settings

RFID Module Setting	Default Value
Tag Type	EPC Class 1 Gen2
Dense Reader Mode	Disable
LBT Channel	5
LBT Scan Enable	Enable
Field Separator	Space ()
ID Report	Enable
No Tag Report	Disable
Report Timeout	0 ms
Timeout Mode	Disable
ID Timeout	100 ms
Antenna Timeout	10 ms
ID Tries	3
Antenna Tries	3
Read Tries	3
Write Tries	3
Initialization Tries	1
Lock Tries	3
Select Tries	1
Unselect Tries	1

RFID Module Settings (continued)

RFID Module Setting	Default Value
Initial Q	4
Field Strength dB	30
Session	2
Enable Antenna Port 1	Enable
Enable Antenna Port 2	Disable
Enable Antenna Port 3	Disable
Enable Antenna Port 4	Disable
Bluetooth Power Off	300 s

Communications

Communications Settings

Communications Setting	Default Value
Device Name	IntermecCK3

Bluetooth Settings

Bluetooth Setting	Default Value
Bluetooth Power	Off
Bluetooth Discoverable	Disable
Bluetooth Connectable	Disable

802.11 Radio Settings

802.11 Radio Setting	Default Value
Security Choice	Funk Security
Allow Security Changes	Enable
Radio Measurement	0
Radio Enabled	Enable

Funk Security Settings

Funk Security Setting	Default Value
Active Profile	1
Profile Label	Profile_1
Network Type	Infrastructure
Channel	3
SSID	INTERMEC
Power Mode	Enabled (Fast PSP)
8021x	None
Association	Open
Encryption	None
Pre-Shared Key	Null
Transmit Key	Key1
Prompt for Credentials	Enable
User Name	anonymous
User Password	anonymous
Inner Authentication-TTLS	MS-Chapv2
Anonymous name	anonymous
Inner EAP	EAP/MDS
Inner Authentication-PEAP	EAP/MS-Chapv2
Subject Name	Null
Validate Server Certificate	No
Server 1 Common Name	Null
Server 2 Common Name	Null
Mixed Cell	Off
CCKM	Off
Automatic PAC Provisioning	Off
Provisioning PAC Prompt	Off
Reprovisioning PAC Prompt	Off
PACManager	Null
Logging	Off
Radio Measurement	0
Radio Enabled	Enable

Ethernet Adapter Settings

IP Settings	Default Value
DHCP	Enable
DHCP Client Identifier	Null
Primary DNS	0.0.0.0
Secondary DNS	0.0.0.0
Primary WINS	0.0.0.0
Secondary WINS	0.0.0.0

Certificates Settings

Certificates Setting	Default Value
Import Root Certificates	False
Import User Certificates	False
Import Pac Files	False

Ethernet Adapter IP Settings

Ethernet Adapter IP Setting	Default Value
DHCP	Enable
DHCP Client Identifier	Null
Primary DNS	Null
Secondary DNS	Null
Primary WINS	Null
Secondary WINS	Null

PSK Settings

PSK Setting	Default Value
Remote Connection	
Host IP	0.0.0.0
Host Port	5555

PSK Settings (continued)

PSK Setting	Default Value
Serial Port	
Baud	115200
Parity	Even
Data Bits	7 Data Bits
Stop Bits	1 Stop Bit
Flow Control	No Flow Control
Protocol	Configurable
EOM1	\x03
EOM2	\xFFFFFFFF
SOM	\x02
Reader Command	Enable w/o TMF
LRC	Disable
Handshake	Disable

Device Settings

Device Settings

Device Setting	Default Value
Date	Null
Time	Null
Adjust for Daylight Time	Disable
Good Read Beep	One Beep
Good Read LED	On
Beeper Volume	Medium

Display Settings

Display Setting	Default Value
Backlight on Battery Power	
Backlight Turns Off After	30 s
Backlight On Tap	Enable
Backlight on External Power	
Backlight Turns Off After	1 min
Backlight On Tap	Enable
Backlight Level	High
Screen Rotation	0 degrees

Keypad Settings

Keypad Setting	Default Value
Scan Button Remapping for Handle Trigger	BRI
Scan Button Remapping for Middle Scan Button	Scanner

Power Management Settings

Power Management Setting	Default Value
Battery Power	
Device Turns Off After	2 min
Screen Turns Off After	1 min
External Power	
Device Turns Off After	Disable
Screen Turns Off After	Disable

Device Monitor

Device Monitor Settings

Device Monitor Setting	Default Value
Poll Period	1 min
Threshold Values	
Backup Battery Charge Remaining	10
Main Battery Charge Remaining	10
Storage Load	90
Memory Load	90

Core Messaging Service

Core Messaging Service Settings

Core Messaging Service Setting	Default Value
Associated Server IP	Null
Server Name	INTERMEC
Keep Alive Ping Interval	30 s

C

Keypads and Keystrokes

Standard Characters

Use the following tables to learn how to enter standard and other available characters and functions with the keypad.

Alphanumeric Characters

Character	Keystroke
a	A
b	B
c	C
d	D
e	E
f	F
g	G
h	H
i	I
j	J
k	K
l	L
m	M
n	N
o	O
p	P
q	Q
r	R
s	S
t	T
u	U
v	V
w	W
x	X
y	Y
z	Z
A	◧D A ◧D A

Alphanumeric Characters (continued)

Character	Keystroke
B	ALT A ALT B
C	ALT A ALT C
D	ALT A ALT D
E	ALT A ALT E
F	ALT A ALT F
G	ALT A ALT G
H	ALT A ALT H
I	ALT A ALT I
J	ALT A ALT J
K	ALT A ALT K
L	ALT A ALT L
M	ALT A ALT M
N	ALT A ALT N
O	ALT A ALT O
P	ALT A ALT P
Q	ALT A ALT Q
R	ALT A ALT R
S	ALT A ALT S
T	ALT A ALT T
U	ALT A ALT U
V	ALT A ALT V
W	ALT A ALT W
X	ALT A ALT X
Y	ALT A ALT Y
Z	ALT A ALT Z
0	0
1	1
2	2
3	3
4	4
5	5
6	6

Alphanumeric Characters (continued)

Character	Keystroke
7	7
8	^ 8
9	9

Function Keys

Function	Keystroke
F1	F1
F2	F2
F3	F3
F4	F4
F5	F5
F6	◆D E
F7	◆D F
F8	◆D G
F9	◆D H
F10	◆D I
F11	◆D J
F12	◆D K
F13	◆D L
F14	◆D M
F15	◆D N
F16	◆D O
F17	◆D P
F18	◆D Q
F19	◆D R
F20	◆D S
F21	◆D T
F22	◆D U
F23	◆D V
F24	◆D W

Special Functions

Function	Keystroke
Forward Tab	→
Back Tab	Blue →
Space	Blue ←
Backspace	←
Shift	Blue A
Caps Lock	Blue B
Field Exit	FldExit
Up Arrow	Blue A ^ 8
Down Arrow	Blue A ⌄ 2
Left Arrow	Blue A < 4
Right Arrow	Blue A > 6
Control	Blue I
Alt	Blue Esc

Note: Some of the following characters or functions will not be printed on the keypad.

Other Available Characters and Functions

Character or Function	Keystroke
!	Blue A Blue 1
@	Blue A Blue ⌄ 2
#	Blue A Blue 3
$	Blue A Blue < 4
%	Blue A Blue 5
^	Blue A Blue > 6
&	Blue A Blue 7
*	Blue A Blue ^ 8
(	Blue A Blue 9
)	Blue A Blue 0
OEM Down	Blue ⌄ 2

Other Available Characters and Functions (continued)

Character or Function	Keystroke
CR Select	Blue 4
Select	Blue 6
Zoom	Blue 8
_	Orange X
|	Orange A Orange F4
:	Orange F1
?	Blue T
;	Orange F2
/	Orange F3
-	Orange 0
\	Orange F5
=	Orange F4
‘	Blue Esc
+	Orange 5
[	Blue B
.	Blue C
]	Blue D
,	Blue X
‘	Orange Y
“	Orange Z
Volume Down	Blue 0
Windows Menu	Blue 1
OK	Blue 3
Volume Up	Blue 5
Soft Key 1	Blue 7
Soft Key 2	Blue 9

Note: The following ITE functions are only operational when you are using the ITE application. The large numeric 28-key keypad does not support ITE.

Intermec Terminal Emulation (ITE) Functions

Character or Function	Keystroke
Field Exit	FldExit
System Request	Blue S
Home	Blue C
Attention	Blue A
Reset	Blue 4
Clear	Blue 6
Roll Down	Blue 2
Previous Screen	Blue G
Roll Up	Blue 8
Next Screen	Blue H
Page Left	Blue U
Page Up	Blue O
Page Down	Blue P
Page Right	Blue V
Field +	Orange 7
Field -	Orange 1

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